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The Lumleian Lectures
ON
INTRATHORACIC ANEURYSM.

Delivered before the Royal College of Physicians of London on March 6th, 11th, and 13th, 1913,

BY F. DE HAVILLAND HALL, M.D. LOND., F.R.C.P. LOND.,

CONSULTING PHYSICIAN TO THE WESTMINSTER HOSPITAL.

LECTURE II.*

(WITH ILLUSTRATIVE PLATES.)

Delivered on March 11th.

MR. PRESIDENT, FELLOWS, AND GENTLEMEN,—The condition of the radial pulses may afford suggestive information as to the presence of an intrathoracic aneurysm. The variations met with in the pulse are: (1) complete absence of one radial pulse; (2) inequality of the two radial pulses in volume, as felt by the finger or demonstrated by the sphygmomanometer; (3) difference in the character of the sphygmograms; and (4) delay in pulse at one or other wrist.

In spite of the complete absence of the pulse the hand may be quite warm, showing that the blood flows into it as before. The failure of the pulse may be due to disease at the mouth of a vessel arising from the arch; pressure on the subclavian artery by the aneurysmal sac; blocking of the artery by a clot; or lastly, to the effect of the cardiac systole being lost as the blood passes through the sac, much in the way in which the second bag of a spray apparatus causes the intermittent action of the first bag to become continuous. In a patient of mine at the Westminster Hospital, at one period of his illness, there was entire absence of the pulse in the arteries of the left arm. Towards the end of the case, however, a feeble pulse was felt in the left radial, due, I believe, to the fact that as fibrin was deposited in the sac, the wall became more rigid, so that the impulse produced by the ventricular systole was not dissipated in the sac, but acted on the blood.

If the innominate artery be involved in the aneurysm, the right pulse would be affected and become small or imperceptible; if the left subclavian artery, as in aneurysm of the transverse arch, then, of course, it would be the left pulse But this is not invariable, so that when there is a difference in the pulse the smaller pulse is not always on the affected side. The inequality of the pulse generally becomes much plainer if the arms be raised, as in testing the pulse for aortic regurgitation.

Dr. Drummond[1] advises that when there is any doubt as to the existence of an inequality of pulses the patient should be directed to inspire deeply, and then slowly to expire to the fullest extent whilst the observation is being made. It will be found that, as a rule, the movements of the chest in respiration affect considerably the size of the smaller radial pulse. A deep inspiration will often abolish the inequality and a forced expiration will exaggerate it. In the majority of cases the inequality is the result of the compression of the artery by the sac, which pressure is relieved by the expansion of the chest in inspiration. This was the explanation of a case recorded by Dr. John Hay.[2] The patient was a man, aged 36, with an aneurysm of the aortic arch. The pulse in the right radial and right carotid arteries disappeared during expiration, especially if the act were exaggerated. This was due to the innominate artery being compressed between the aneurysm behind and the sternum and costal cartilages in front, the lumen of the artery being almost occluded towards the end of expiration.

I have no personal experience of the use of the sphygmograph in the diagnosis of thoracic aneurysm. It will enable a definite record to be kept of the condition of the pulses, and if there be any difference between the two pulses the tracing will give more distinct information than the impression conveyed to the finger. The sphygmograph is an interesting and useful adjunct to diagnosis, but it is not indispensable. Digital examination of the pulses is a far less sensitive method than the use of the sphygmomanometer, so that slight degrees of inequality are frequently overlooked or misinterpreted if the finger alone be employed.

The observations of Dr. O. K. Williamson[3] show that, as a rule, the arterial pressure in thoracic aneurysm is normal or slightly above normal, whereas in mere dilatation of the aorta it is much higher. A slight difference in pressure between the two radials is fairly common to aneurysm and dilatation of the aorta, but a difference of upwards of 30 millimetres is strongly in favour of aneurysm as against dilatation of the aorta. In the differential diagnosis of aneurysm of the aorta from arterio-sclerosis or mediastinal tumour, a difference of pressure between the two sides greater than 20 millimetres affords strong evidence in favour of aneurysm. Apart from other causes, a frequent pulse may indicate tachycardia due to pneumogastric irritation from aneurysmal pressure.

THE PUPILS.

As Sir William Gairdner[4] has pointed out it is a curious circumstance that in the past so little attention was paid to myosis. The existence of a contracted state of the pupil in cases of aneurysm seems to have eluded the clinical shrewdness of Sir Thomas Watson, as I can find no reference to it in his lectures on the Practice of Physic. Gairdner credits Dr. Walshe with being the first to mention this symptom in connexion with aneurysm. Though Dr. Walshe[5] was the first to record a case of aneurysm with contracted pupil, Dr. MacDonnell, of Montreal, had previously observed a case of malignant tumour producing pressure on the sympathetic with consequent contracted pupil, ptosis, and epistaxis. Gairdner himself published a case of aneurysm projecting into the neck and accompanied by contraction of the pupil on the affected side.

It was not, however, until Dr. John Ogle,[6] in 1858, presented his exhaustive paper, "On the Influence of the Sympathetic on the Eye and its Appendages," that the subject received adequate attention. According to Dr. Ogle pressure upon the cervical sympathetic from aneurysmal and other tumours may result in a *contracted* state of the pupil; but if the pressure were so slight as merely to act as a stimulus to the dilator fibres of the pupil, then a *dilated* state of the pupil was produced. This view was universally accepted up to recent years, but in 1902 it was challenged by Dr. Cecil Wall and Dr. Ainley Walker.[7] They point out that in the majority of cases there is no evidence of implication of that portion of the sympathetic nerve trunk containing pupil-dilator fibres, and they are of opinion that inequality of pupils, associated with thoracic aneurysm, is usually due to inequality of blood pressure in the ophthalmic arteries, a contracted pupil being associated with high blood pressure and a dilated pupil with low pressure. Though Dr. Wall and Dr. Walker have put forward a very ingenious explanation of the pupillary changes seen in thoracic aneurysm, they do not appear to have met all the arguments in favour of the inequality being due to sympathetic influence. That the cervical sympathetic is implicated in some cases is shown by the fact that, in association with a contracted pupil, there are to be noted drooping of the eyelid, recession of the eyeball, and an absence of sweating and flushing on the affected side.

As regards the frequency of alterations in the pupils I may quote Dr. Drummond's[8] figures: "In 87 cases in which the point was noted, they were affected in 34 and equal in 53; in 13 the right was dilated, in 9 the left contracted, in 7 the right contracted, and in 5 the left was dilated." Very little stress should be placed upon a mere inequality of the pupils in the diagnosis of an intrathoracic aneurysm, but a permanent unilateral myosis, with other evidence of involvement of the cervical sympathetic, should certainly receive due attention. As an aneurysm is so frequently met with in syphilitic subjects, it may be associated with tabes, and in this event the patient may naturally present the eye-reactions characteristic of this disease.

TRACHEAL TUGGING.

Tracheal tugging was first described by Surgeon-Major Oliver,[9] but it received little attention in this country until the question was taken up by Dr. MacDonnell,[10] of Montreal. The directions given by Surgeon-Major Oliver for eliciting this sign are as follows. "Place the patient in the erect position, and direct him to close his mouth and elevate his chin to the fullest extent; then grasp the cricoid cartilage between the finger and thumb, and use gentle upward

* Lecture I. was published in THE LANCET of March 22nd, 1913, p. 803.

pressure on it, when, if dilatation or aneurysm exist, the pulsation of the aorta will be distinctly felt transmitted through the trachea to the hand. The act of examination will increase laryngeal distress should this accompany the disease."

Dr. MacDonnell points out, and gives cases in illustration, that tracheal tugging may be present when many other physical signs and symptoms are absent, that the sign is limited to aneurysms involving the transverse arch, and that direct pressure upon the trachea does not cause tracheal tugging. He maintains that "tracheal tugging is a very early sign in the history of the case. In all the cases in which it was present it was detected on admission." In some cases the downward tug of the aneurysm upon the larynx is so pronounced as to be visible. On the other hand, in one case the trachea and larynx, instead of being dragged down with each heart beat, were pushed upwards in sudden oscillations; the suggestion being that this was due to aneurysm arising from the convexity of the arch of the aorta.[11]

Though the existence of tracheal tugging is almost diagnostic of aneurysm, it may be caused very occasionally by anything which brings the aorta into abnormally close connexion with the left bronchus. Hence, it has been met with in cases of new growth occurring in this position. Fibrosis of the lung and pleural adhesions to the chest wall have also given rise to it. This sign cannot, therefore, be regarded as absolutely diagnostic of aortic aneurysm, but its absence in a case where the other symptoms and signs suggest the presence of a tumour in contact with the trachea and left bronchus should lead to the exclusion of an aneurysm as the cause of the pressure.

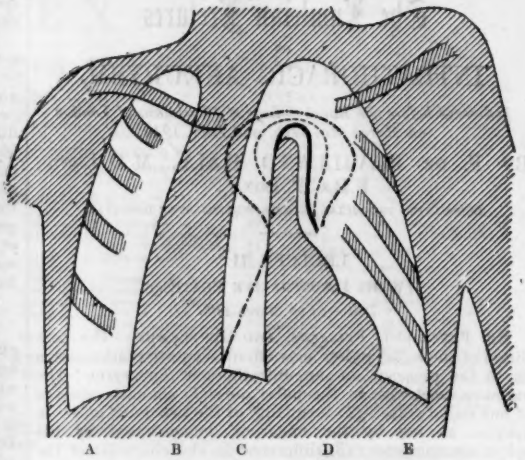
M. Boinet[12] has described a new sign occasionally met with in aneurysm of the arch of the aorta, "signe du larynx," the larynx being drawn downwards, backwards, and to the left, and being immobile. Attention should also be directed to any lateral displacement of the trachea as indicative of aneurysmal pressure.

ROENTGEN RAYS.

In no department of medicine has the X ray method of examination done greater service than in the detection of intrathoracic aneurysm. It is not too much to say that the diagnosis of aortic aneurysm has been completely revolutionised since we have been enabled to throw a flood of light upon the contents of the thorax. It is now possible to detect many an aneurysm which would formerly have escaped observation, and we are also able by the X rays to exclude conditions such as pulmonary tuberculosis and new growths, which in the past frequently presented features of great difficulty in regard to differential diagnosis from aneurysm.

Thanks to the kind assistance of Dr. Hugh Walsham, I am able to show to you negatives of aneurysms which illustrate points in diagnosis. These are of great interest, but all radiographers are agreed that the screen examination gives more valuable information than can be obtained from an inspection of a skiagram.

DIAGRAM I.



A. Clear area corresponding to right lung. B. Shadow of vertebral column. C. Clear middle space. D. Shadow of normal heart and aorta. E. Clear area corresponding to left lung; ——— dilated aorta; - - - - - - small commencing aneurysm; —.—.—., upper part, larger aneurysm; ——.—.—., lower part, position of dilated auricle.

To obtain a reliable result in any given case the anterior, the posterior, and the right anterior oblique examination must be employed. In order to demonstrate the appearances found in a right anterior oblique examination I would direct your attention to the diagram No. 1, which Professor Holzknecht has kindly allowed me to use.[13]

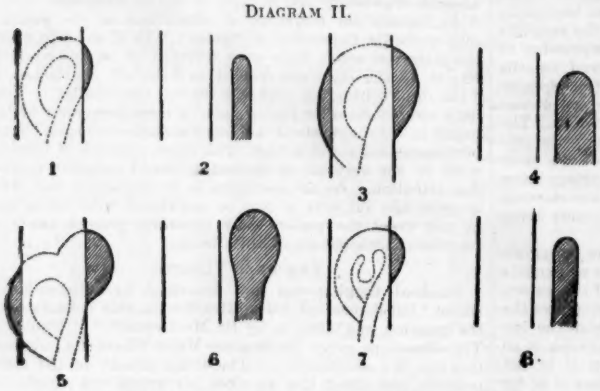
Diagram No. II. is also after Holzknecht. "No. 1 represents the normal aorta in the antero-posterior examination; the parallel lines represent the central opacity, and the shaded portion the portion of the aorta which projects beyond this central opacity—namely, the left lateral aortic bulge. In No. 2 the parallel lines represent the vertebral shadow, the shaded part the normal aorta seen in the right anterior oblique examination. Nos. 3 and 4 represent the appearances which may obtain in the case of a generally dilated aorta; Nos. 5 and 6 the appearance seen in aneurysm; Nos. 7 and 8 a small aneurysm springing from the under surface of the arch, which could not be detected by X ray examination either in the anterior, or posterior, or right lateral oblique examination, the appearances presented being practically indistinguishable from those seen in Nos. 1 and 2, the normal aorta."

As just pointed out, a small aneurysm in the concavity of the arch of the aorta may escape recognition by either the anterior or oblique method of examination. In nearly all other varieties of aneurysm an X ray examination will give decisive information. Fluid blood is very nearly transparent to X rays, but clotted blood is comparatively opaque to the rays, so that if a dense shadow is cast by the aneurysm we can reasonably infer that deposition of laminated clot has taken place in the sac.

Fig. 1 is from a patient who was sent to me, as his symptoms were very suggestive of a thoracic aneurysm. Physical examination, however, gave no support to this view. To clear up any doubt on the subject I requested Dr. Walsham to X ray the patient, and as will be seen from the skiagram, the aorta is considerably dilated, but there is no aneurysm.†

Fig. 2 is a good example of an aneurysm affecting the ascending portion of the arch of the aorta; in Fig. 3 the ascending and transverse portions are involved. Figs. 4 and 5 show an aneurysm of the transverse portion of the arch; they are from the same patient, and illustrate the increase in size which aneurysms undergo. The skiagram of No. 5 was taken five

DIAGRAM II.



X ray appearances obtaining in the case of the normal and dilated aorta and of aortic aneurysms. (After Holzknecht.)

† For Figs. 1 to 12 see illustrated plate.

months later than that of No. 4. In Fig. 6 the transverse and descending aorta is implicated.

Fig. 7 is the skiagram of a man aged 55. This was evidently an aneurysm of very rapid development, as a few weeks before I saw the patient he had been examined by a very able physician, who failed to detect an aneurysm. The patient died two months after his first interview with me. The aneurysm is seen to involve the transverse and descending portion of the arch. At the post-mortem examination it was found that further development of the aneurysmal process had taken place.

MODES OF TERMINATION.

In speaking of the mode of termination of intrathoracic aneurysm I must mention the possibility of cure, though, as I have already stated, this termination is seldom met with. In the rare cases in which cure of an aneurysm takes place this is effected in one of two ways: either by the deposition of laminated fibrin in the interior of the sac, or by the outer coating of the sac getting more and more supported externally, by fibrous change taking place in the tissues around the aneurysm.

That a cure, either spontaneous or after treatment, of a large thoracic aneurysm does take place is proved by the number of instances in which, at a post-mortem examination, an aneurysm has been found filled with firm decolourised clot. I need only cite two instances which have appeared in THE LANCET recently. 1. A patient who had been under Mr. Tufnell[15] for aortic aneurysm died a violent death. The aneurysm was found filled with solid clot. 2. Sir Thomas Oliver[16] has recorded a case of an aneurysm arising about one inch above the aortic valve, and extending almost to the margin of the left carotid and subclavian, which was found to be filled with firm decolourised clot—the man had died of renal disease.

The extreme difficulty of estimating the effect of treatment is illustrated by a case which I showed at the discussion on aneurysm at the Medical Society in December, 1889.[17] I then claimed that the improvement in the symptoms and physical signs, which the patient exhibited, was due to some amount of consolidation having taken place in the sac, but at the post-mortem examination, six months later, the wall of the aneurysm was found to be very thin and there was no laminated fibrin.[18]

A fatal termination may be brought about in the following ways:—

I. Rupture: (*a*) Internal—(1) into serous membranes; (2) into mucous membranes; (3) into blood-vessels; (4) into the subcutaneous tissue. (*b*) External.
II. Pressure upon trachea.
III. Pressure upon œsophagus.
IV. Exhaustion due to long-continued suffering, or arising from repeated small losses of blood.
V. Heart failure—frequently in connexion with aortic regurgitation.
VI. Anginal attacks.
VII. Cerebral embolism.
VIII. Pulmonary tuberculosis and other complications.

The causes of death, in cases submitted to post-mortem examination at the Westminster Hospital, are as follows (98 cases):—

Rupture	41	Pneumonia and broncho-pneumonia	7
Œdema of larynx	1	Other causes (tuberculosis, gangrene of lung, pericarditis, cancer of stomach) ...	4
Pressure on trachea	1		
Cardiac failure	44		

Modes of termination of private patients (35 cases):—

Rupture	6	Cerebral embolism	1
Died suddenly (? rupture) ...	6	Cause of death not stated ...	4
Pressure on trachea	4	Lost sight of	2
Lung affections	6	Alive and well	2
Exhaustion and cardiac failure	4		

From Dr. Oswald Browne's statistics it appears that out of 58 aneurysms affecting the ascending part of the arch the disease terminated by *rupture* in 18 cases; in 9 instances into the pericardium, in 4 into the right pleural cavity, in 2 cases the aneurysm ruptured externally, and once into the right lung, pulmonary artery, and left pleural cavity respectively. Out of 35 aneurysms affecting the transverse portion the disease terminated by rupture in 12 cases. Three times into the left pleural cavity and into the left bronchus respectively, twice each into the trachea and into the pericardium, and once each into the œsophagus and externally. Out of the 19 instances of aneurysms affecting both the ascending and transverse portions of the arch the disease terminated by rupture in 4 instances—once each into the right lung, right pleural cavity, left pleural cavity, and trachea.

In the third or descending portion of the arch there were 21 cases, and rupture occurred in 16 instances. In 8 cases into the left pleural cavity, in 3 into the œsophagus, 3 into the left bronchus, and once into the right pleural cavity and right lung respectively. In the descending thoracic aorta there were 17 cases, and rupture occurred in 14. In 7 cases into the left pleural cavity, twice into the right pleural cavity, thrice into the œsophagus, once into the left bronchus, and once into the subserous connective tissue lying to the right of the spinal column.

From the figures I have given it will be seen that the most common termination of aneurysms of the descending part of the arch and of the descending thoracic aorta is rupture into the left pleural cavity; this occurred 15 times out of 38 cases of aneurysm.

Dr. Oswald Browne's Statistics.

—	Ascending portion of arch.	Transverse portion.	Ascending and transverse portion.	Descending portion of arch.	Descending thoracic aorta.
Pericardium	9	2	—	—	—
Right pleural cavity	4	—	1	1	2
Externally	2	1	—	—	—
Right lung	1	—	1	1	—
Left pleural cavity	1	3	1	8	7
Pulmonary artery	1	—	—	—	—
Left bronchus	—	3	—	3	1
Trachea	—	2	1	—	—
Œsophagus	—	1	—	3	3
Subserous tissue	—	—	—	—	1
Total number of cases of rupture	18	12	4	16	14
Total number of cases of aneurysm	58	35	19	21	17

From this table we get the remarkable figures that out of 112 aneurysms affecting the first two portions of the thoracic aorta rupture occurred 34 times, whereas in 38 cases of aneurysm of the two remaining portions of the aorta, rupture occurred 30 times—i.e., more than three times as frequent.

Summing up Dr. Oswald Browne's figures, and arranging them in order of frequency, they come out as follows. They may be compared with cases reported by Dr. Kelynack[19] and with the Westminster Hospital series.

	Dr. Oswald Browne.	Dr. Kelynack.	Westminster Hospital.
Into left pleural cavity	20	7	5
,, pericardium	11	13	9
,, right pleural cavity ...	8	1	5
,, left bronchus	7	—	5
,, œsophagus	7	3	6
,, trachea	3	2	2
,, right lung	3	—	3
Externally	3	3	2
Into pulmonary artery	1	—	1
,, subserous tissue	1	—	—
,, left lung	—	1	1
,, right bronchus	—	1	—
,, superior vena cava ...	—	1	—
,, left auricle	—	—	2
,, lung	—	—	1
Total	64	32	41

Combining Dr. Oswald Browne's cases with those from the Westminster Hospital it will be found that rupture occurred in rather over 42 per cent. of the cases submitted to a post-mortem examination.

The difference in the way in which an aneurysm ruptures into a serous cavity compared with rupture through a mucous membrane is very remarkable. When the rupture takes place into a serous cavity, as the pleural cavity or the

pericardium, there is almost always a considerable rent and death occurs speedily, often, indeed, almost instantaneously. After this manner died a medical man, who was under my care in the Westminster Hospital. He was talking to the night nurse, being apparently quite comfortable, but before she reached the end of the ward he was dead. At the necropsy a rupture into the pericardium was found. In another case, where rupture took place into the pleural cavity, the patient cried out for help, but before the nurse could reach the bedside he was dead.

On the other hand, note what often occurs when an aneurysm bursts into the trachea; there is a little gush of blood, followed by cessation of the bleeding, then another gush, and perhaps one or two more, finally the patient may be choked by a great gush of blood. In some cases of rupture, especially into a closed space such as the mediastinum or subserous tissue, there may be acute blanching with coma, and not syncope, preceding further loss of blood and death.

Though rupture of a thoracic aneurysm is usually immediately fatal, a few exceptional cases have been recorded. A notable example is that of the celebrated surgeon, Liston, who had a considerable hæmorrhage, suggestive of rupture of an aneurysmal sac. He died five months later, but not from hæmorrhage, though there had been slight discharges of blood in the interval. At the necropsy the trachea was found to be perforated in three or four places and portions of clot were discovered projecting through the openings from the sac, partially blocking them, and so preventing further severe hæmorrhage.

Sir Felix Semon[20] has recorded a case of aneurysm of the thoracic aorta with repeated perforations of the œsophagus. Even rupture into the pericardium, in which instantaneous death is the rule, is sometimes compatible with life for a time. This is shown by a case reported by Sir Samuel Wilks,[21] in which the opening was closed by inflammation, and the patient lived exactly a month after the onset of the pericardial symptoms.

Rupture into the superior vena cava is a comparatively rare mode of termination. The combined figures of Dr. Oswald Browne, Dr. Kelynack, and the Westminster Hospital give 138 cases of rupture of an intrathoracic aneurysm, and there is only one example of rupture into the vena cava. Death usually occurs very speedily, but Sir William Gairdner[22] reported a case which lasted eight days; Dr. Syers's[23] case lived a month; but the most remarkable of all is a case reported by Dr. Laurence Humphry.[24] In this instance the patient lived for nearly 18 months after the onset of the urgent symptoms, developing large veins over the chest with a downward current.

A rare mode of termination is by rupture of the sac into the subcutaneous tissue of the chest wall. Such a case has been described by Dr. Raussier and Dr. Houel.[25] A woman, 60 years of age, had a large pulsatile tumour in the upper and anterior part of the right chest. The aneurysm gave way suddenly into the subcutaneous tissue after attempt to cough; the patient experienced a very painful tearing sensation, and the tumour increased in size. Next day the swelling extended into the axilla and there were severe attacks of pain in the branches of the brachial plexus. The patient died three days after the rupture, apparently in consequence of the escape of the large quantity of blood into the cellular tissue. At the necropsy it was found that the aneurysm had developed from the ascending aorta.

As a rule, rupture of an aneurysm externally—i.e., through the skin—is almost invariably attended by sudden death, but, as in a case mentioned by Gairdner,[26] the external hæmorrhage may be arrested. The patient ruptured an aortic aneurysm externally opposite the cartilage of the third rib. He lost so much blood that he fainted; then the bleeding stopped; he lived for four months without any recurrence, and died from typhus fever.

Dr. Oswald Browne's tables illustrate the tendency of aneurysms of the transverse arch of the aorta to exert direct pressure on the trachea, as this effect was noted in 13 out of 35 cases of aneurysms of this part of the aorta, and in 15 death arose from asphyxiation due to increasing pressure on the trachea. Among my own cases there are four which I think may be attributed to direct pressure on the trachea. In two cases my opinion was especially asked as regards the question of tracheotomy, and the correctness of the diagnosis was confirmed by a post-mortem examination. In respect to the other two cases, in one the presence of an aneurysm of the transverse arch was verified by an X ray examination, but in the remaining case the evidence is less convincing. In all four cases death took place from asphyxia; in one case death was preceded by epileptiform convulsions.

The difficulty of diagnosing aneurysmal pressure upon the œsophagus is very great, inasmuch as the pressure is usually effected by a sac springing from the descending part of the arch, or from the descending thoracic aorta. In these situations the aneurysm is deep-seated, and the physical signs are difficult to make out. Take, for example, the case of a lady aged 63, who was sent to me by her medical adviser on account of difficulty of swallowing (and particularly as regards solids), with loss of flesh. On making a laryngoscopic examination I found loss of movement in the right vocal cord. I could not, however, detect any physical signs of aneurysm. The patient died from hæmatemesis. If the vocal cord paralysis had been left-sided I would certainly have made the diagnosis of aneurysm, but as it was I am doubtful. This is a type of a class of cases I have frequently seen, and in the absence of an X ray examination or a necropsy it is often impossible to say whether malignant disease or aneurysm was the cause of death. Skiagram No. 8 is an example of malignant disease of the œsophagus, which was mistaken for an aneurysm until the X ray examination was made.

I have come across several cases in which death has resulted from the exhaustion due to the long-continued suffering which so often accompanies erosion of the vertebræ. The first case in my list of private patients was an example of this sort, as was also the case I brought before the Medical Society of London in December, 1900. This I regard as a fairly common cause of death in aneurysm. I have not met with death resulting from repeated small losses of blood.

In four of my cases death was attributed to exhaustion and cardiac failure. Out of 159 cases collected by Dr. Drummond,[27] in which the cause of death was determined, in 27 the fatal result was due to valvular disease. Where aortic regurgitation exists death is due rather to degeneration of the heart's substance consequent upon the valvular defect than to the aneurysm itself.

I have no doubt, in my own mind, that some of the deaths which have been ascribed to angina pectoris are in reality due to anginal attacks occurring in patients with an aneurysm which has not been diagnosed. One case of the sort, which occurred upwards of 30 years ago, has remained impressed upon my memory. The patient, aged 40, was an officer in the Life Guards, who was brought to me by his usual medical attendant. Though the physical signs were not conclusive as to the presence of an aneurysm, I have little doubt that one existed, and that the awful attacks of angina from which the patient suffered were due to the aneurysm. This was the first case to suggest to me the possibility of severe angina pectoris being caused by an aneurysm. I have seen other cases which would justify the same conclusion. I would therefore venture to suggest that in every case in which the patient complains of anginal pains the question of the presence of an aortic aneurysm, as the underlying cause, should be carefully considered.

One of my patients died as a result of cerebral embolism giving rise to hemiplegia, and in the case of another it is stated that the patient died with hemiplegia and lung trouble, so that it is quite possible that the hemiplegia and lung trouble were both of embolic origin.

Curiously enough, lung conditions causing death seem to have been usually frequent among my cases. For instance, there is a death from bronchitis, three from pneumonia (one case being of a septic nature), and, finally, a death from influenza complicated with pleural effusion. One case, which I have not included in my list of aneurysms, died from phthisis. I myself think that this was a case of pulmonary tuberculosis supervening upon an aneurysm, but unfortunately it occurred before the days of X rays. It illustrates the difficulty, to which I shall allude later on, in diagnosing aneurysm where there is disease of the lungs.

DIAGNOSIS.

To the careful and experienced physician, as well as to the neophyte, there comes at times a rude awakening, and he finds, greatly to his chagrin and regret, that he has failed to make a correct diagnosis. In this connexion two cases of aneurysm come to my mind.

In the first case I was saved from making a gross blunder

by examining the patient laryngoscopically. At the end of a busy morning's work a medical man came into my consulting-room, saying that he had caught cold and had a cough. I was about to order a simple cough mixture and to ask him to call again, when I recognised that he was hoarse. A laryngoscopic examination showed the left vocal cord in the cadaveric position, and a pulsation under the left clavicle convinced me of the presence of an aneurysm. Knowing that he was a locum-tenent out of work I advised his admission into Westminster Hospital. He came in two days later, and on the night of admission, while talking to the nurse, he was seized with acute pain in the chest and died within a few seconds. The necropsy showed rupture of a large aneurysm into the pericardium, and yet prior to his visit to me the patient was doing his ordinary work quite unconscious that he was seriously ill.

The fatal termination of the second case came to me as a shock at the time, but subsequent consideration has convinced me that the diagnosis of an aneurysm in this particular case was almost impossible. I doubt whether even an X ray examination would have revealed the true condition of affairs.

A stout-built, healthy-looking man, aged 46, a solicitor, consulted me on account of a swollen condition of his face. He stated that the swelling was first noticed the morning following a heavy dinner, the eyelids being especially affected. Physical examination of the chest revealed nothing amiss. The urine contained a trace of albumin. From the patient's appearance and the account he gave of himself I came to the conclusion that he lived too well and that his kidneys were affected. He paid me a second visit five days later. I heard nothing more of the patient until 11 days after his last visit, when I received a telephone message from the coroner to say that while playing at bridge the patient suddenly fell off his chair and expired at once. Death was found to be due to the rupture into the pericardial cavity of an aneurysm seated 2 inches above the aortic valve, the pericardium being distended with blood clot. A puffy or swollen condition of the face is not unfrequently present in cases of aortic aneurysm, but apart from this symptom there was nothing to direct my attention to the state of the patient's aorta.

The rupture into the pericardial cavity of an aneurysm, originating from that portion of the aorta covered by the pericardium, is a possibility that should be borne in mind in cases of sudden death occurring without any distinct indication as to its cause.

In contra-distinction to these deep-seated aneurysms we may meet with aneurysms coming to the surface, so as to be clearly recognisable by sight and touch, and yet not giving rise to any symptoms. Sir B. W. Richardson[29] has recorded such a case. The patient had a tumour the size and shape of half a moderate-sized orange just above the right breast; the skin over it was tense and of a bright red colour. Except for the tumour the patient had not any unhealthy symptoms. At the necropsy, two months later, an aortic innominate aneurysm was found. The aneurysmal sac may sometimes attain an enormous size and compress the lung in front of it, and yet give rise to hardly any of the characteristic physical signs of aneurysm, so that there may be great obscurity in diagnosis.

A small aneurysm on the transverse arch of the aorta may easily escape recognition. A ringing cough may be the only symptom. Tumour, murmur, pain, dyspnœa, and other evidences of intrathoracic pressure may be absent, and the pupils, pulses, and vocal cords may afford no help in the diagnosis.

My predecessor in this chair, Dr. Percy Kidd, has drawn attention to the association of aneurysm with tuberculosis. He reported five cases in which this combination was found post mortem. In three no signs of phthisis were noted during life; one died in the out-patient department before being examined and the remaining case was only one day in the hospital. This report should emphasize the importance of carefully investigating all the organs of the body, and of not allowing the diagnosis of aneurysm to prevent the recognition of other ailments. On the other hand, I would point out that pressure of an aneurysm on the root of the lung may result in retention of secretion in the bronchi, thus giving rise to bronchiectasis, the symptoms and physical signs of which may, unless great care be taken, cause an erroneous diagnosis of pulmonary consumption to be made.

I have already mentioned a case in which impairment of resonance at the left apex, really due to an aneurysm, was regarded as evidence of pulmonary tuberculosis. In cases of this sort the presence of a few râles and hæmoptysis may increase the difficulty of diagnosis. The absence of tubercle bacilli from the sputum should awaken suspicion that the disease is not tuberculosis, and an X ray examination would almost certainly settle the diagnosis. Skiagram No. 9 is taken from a patient in whom the presence of an aneurysm was suspected, but the X rays showed clearly that pulmonary tuberculosis was the cause of the trouble.

There can be, I think, no doubt that some of the cases of death from profuse hæmoptysis, which have been attributed to phthisis, were really due to the rupture of an aneurysmal sac into a bronchus. On the other hand, retraction of the lung from old phthisis, usually on the left side, may leave the vessels of the heart uncovered, and the pulsation of the exposed vessel may simulate an aneurysm. The pressure of an aneurysm upon the pulmonary branches of the vagus may give rise to paroxysmal attacks of dyspnœa, which, without the aid of X rays, might be difficult to distinguish from spasmodic asthma.

An empyema may be the result of extension of the septic mischief from the bronchi to the pleura in a case of aneurysm. In these cases too rapid withdrawal of the fluid has been followed by rupture of the sac of the aneurysm. A pulsating empyema may very closely resemble an aneurysm. At the commencement of my medical career a friend of mine had a pulsating tumour of the chest wall. He was seen by some of the most distinguished men of the day, but there was no consensus of opinion, some maintaining that the tumour was aneurysmal, others that it was an empyema, and one surgeon went so far as to say that he was prepared to incise it then and there. The patient died suddenly, but unfortunately a post-mortem examination was not permitted.

The existence of advanced emphysema by masking the dulness of the aneurysmal sac will sometimes render the diagnosis difficult. This occurred in one of my patients. Fortunately in this case the recognition of the cadaveric position of the left vocal cord gave the clue to the diagnosis, otherwise I am afraid that there would have been great difficulty in arriving at the true state of affairs. The skiagram (No. 10) confirmed the diagnosis which had been already made of an aneurysm affecting the transverse and descending portions of the arch of the aorta.

The possibilities of error in the diagnosis of aneurysm seem to be almost limitless. One would hardly have thought that, given the physical signs of pneumothorax, the question of aneurysm would have to be considered, but Dr. Newton Pitt[29] has brought forward six cases, all of which were submitted to a post-mortem examination, in which compression of the left bronchus by a saccular thoracic aneurysm produced such over-distension of the lung as to give rise to the suspicion that the patient had a pneumothorax. It therefore behoves the physician not to be too confident in a diagnosis of pneumothorax until he has put out of court over-distension of the lung due to compression; and on the left side an aneurysm is the most common cause of compression. Dr. Walsham states emphatically that an X ray examination of the chest will discriminate between an over-distended lung and a pneumothorax. "In the pneumothorax the shadow of the collapsed lung can always be seen, while in the over-distended lung, of course, it is never so seen."[30]

As I have already mentioned, I am fully convinced of the diagnostic value of complete paralysis of the recurrent laryngeal nerve on the left side giving rise to what is termed the cadaveric position of the corresponding vocal cord. I am, therefore, quite in accord with what appeared to be the general feeling of the speakers who took part in a discussion on this subject at the Laryngological Society[31] in 1905. One of the speakers said that he had come to the conclusion that the great majority of cases of paralysis of the left vocal cord were due to aortic aneurysm where no other cause could be found for it. Indeed, he went so far as to say that he believed fully nine-tenths of such cases of paralysis of the left cord were due to that cause. While not going quite so far as to say that nine-tenths of the cases of left recurrent paralysis are of aneurysmal origin, I would certainly agree that the great majority of the cases are of this nature. I can, however, recall numerous cases in which malignant disease of the œsophagus has involved the nerve and caused

paralysis. Three other cases come to mind in which there was difficulty in deciding as to the cause of the paralysis.

A medical man, 30 years of age, consulted me with the history that eight days previously he became suddenly hoarse. The day before the onset of hoarsensss he had had pain in his throat, but he had had no difficulty in swallowing, and he was not feverish. On laryngoscopic examination I found the left vocal cord immobile in the cadaveric position. I could not detect anything abnormal in the lungs or heart; the left pulse was larger than the right; the pupils were equal. It was before the days of X rays, so that I could not call them in to assist me in arriving at a diagnosis. In consultation with Sir Felix Semon it was agreed that peripheral neuritis was the probable cause of the paralysis. The subsequent course of events confirmed the correctness of the diagnosis. Fourteen years later I met the patient in consultation, and I was glad to find that he was enjoying vigorous health.

The second case was a young lady, 19 years of age, who consulted me in June, 1912, on account of hoarseness and choking when she drank. These symptoms had existed two months. The left vocal cord was found in the cadaveric position. The cardiac dulness was greatly increased, especially to the right; systolic and diastolic murmurs were audible in the aortic area, and presystolic and systolic in the mitral. The right pulse was much larger than the left, and the right pupil was also larger than the left. From the skiagram No. 11 [32] you will see that there is great dilatation of the right side of the heart, but no evidence of an aneurysm. The paralysis of the left vocal cord must be due to stretching and atrophy of the corresponding recurrent laryngeal nerve. The inequality of the pulses and pupils, together with the laryngeal paralysis, would certainly have suggested the possibility of an aneurysm, in spite of the age and sex of the patient, had it not been for the X-ray examination.

In the third case, which was under my care in the Westminster Hospital (before the days of Roentgen rays), there was a double aortic murmur and a mitral systolic murmur. As the left vocal cord was in the cadaveric position a diagnosis of aneurysm was made. At the post-mortem examination there was no aneurysm, simply great dilatation of the left side of the heart.

The last two cases illustrate the difficulty that the combination of valvular disease with enlargement of the heart and the presence of left recurrent paralysis may give rise to in diagnosis. Fortunately, however, we can now usually clear up the question by means of an X ray examination.

Sir James Risdon Bennett, whose admirable Lumleian Lectures in 1871 did so much to direct attention to intrathoracic growths, truly said, "*The differential diagnosis between aneurysm and malignant tumours is sometimes* beset with difficulties." [33] He pointed out that unlike aneurysms which take a definite course in their development, in malignant tumours there is the utmost diversity, not only in the original situation of the growths as regards their anatomical relations, but also as regards the direction they take in their development. The superficial veins are more likely to become distended from the pressure of a cancerous growth than by an aneurysm. He says that speaking generally he believes "that pain is a more prominent and severe symptom in connexion with aneurysm than with intrathoracic cancer." [34] Another difficulty at an early period of the case is the existence of a cardiac bruit in the presence of deep-seated cancerous disease at the root of the lungs. In this condition the diagnosis of aneurysm might very well be made.

Sir J. R. Bennett's next statement draws attention to a most important point. "A marked distinction between the progress of an intrathoracic aneurysm and cancer is the well-known tendency of the former to produce *absorption of bone and external tumour*." [35] Like all general rules in medicine it has exceptions. Sir J. R. Bennett himself quotes a case recorded by Mr. Holmes [36] in which both external tumour and absorption of bone resulted from the outward growth of a malignant mediastinal tumour. Still the fact remains that while absorption of bone and external tumour are comparatively common in aneurysm, they very rarely occur in the case of new growths. Owing to the deep-seated position of the thoracic aorta an aneurysm of this part of the aorta seldom comes to the surface, so that dulness to the left of the sternum is more likely to be due to a new growth than to aneurysm.

It may be stated that as a general rule thoracic aneurysm occurs in men under 55 years of age, who usually present the appearance of health; whereas malignant disease, though it may occur in early life, is more common in advanced years, and it is frequently associated with emaciation and pallor.

The signs of an intrathoracic tumour in a woman should awaken suspicion of a new growth in the first instance. Anæmia, cachexia, and irregular pyrexia are in favour of a malignant neoplasm, as is also the presence of enlarged glands. The course of the disease will sometimes assist in the diagnosis. In cases of intrathoracic tumour there is a steady progression from bad to worse. This can readily be understood, if it be borne in mind, that neoplasms, occurring in the mediastinum, are almost invariably sarcomata or carcinomata of rapid growth, and associated with this active development are emaciation and constitutional disturbance. Contrariwise, patients suffering from aneurysm are liable to alternations of improvement and retrogression. But there are exceptions to this course, and I remember the case of a patient, suffering from a malignant growth in the mediastinum (verified by a necropsy), in whom the improvement, which ensued after the administration of iodide of potassium and the enforcement of rest, was so great as to confirm the idea that an aneurysm was the real cause of the trouble. The paroxysmal tendency of the symptoms in cases of aneurysm needs to be emphasised; this is especially to be noticed as regards dyspnœa.

In distinguishing intrathoracic aneurysm from an intrathoracic growth, it should be borne in mind that the dulness in the case of the former is less irregular, and there is not so much resistance on percussion. In aneurysm there is a greater likelihood of the pupils and pulses being unequal. There is also a greater tendency to pressure upon the trachea and left recurrent laryngeal nerve, as evidenced by cough, hoarseness, and stridor. In new growths, as has been already pointed out, there is a greater likelihood of pressure upon veins, causing enlargement and tortuosity of the superficial veins and œdema of the upper extremities and chest wall. The most common cause, however, of great venous distension is the obliteration of some deep veins due to thrombosis.

Murmurs are naturally much more common in aneurysms, but they are by no means unknown in new growths. In a doubtful case an X ray examination will usually clear up the difficulty. It did so in the patient from whom this skiagram No. 12 was taken. Aneurysm was suspected, but, as will be seen, a new growth (lymphadenoma) was present.

The combination of the signs of loud tracheal breathing and dysphagia is so suggestive of the presence of an aneurysm that their occurrence should entail the most thorough investigation, and especially the use of Roentgen rays, before an adverse decision is arrived at. But even with the help of an X ray examination the aneurysm may be overlooked, as I think would have happened in a case recorded by Dr. Martin, [37] where an aneurysm of the size of a small walnut projected backwards from the descending part of the arch and pressed itself between the trachea and œsophagus. Into this latter the sac, at its lower portion, had opened; while at the same time it had by its upper portion still exercised pressure upon the œsophagus above; and so the whole stream of blood, which should have passed down the descending aorta, had been pumped into the stomach—not a single drop having been allowed to come upwards to the mouth.

The dysphagia caused by the pressure of a thoracic aneurysm upon the œsophagus may give rise to the suspicion of malignant stricture. A history of syphilis would point to aneurysm. The pain caused by stricture is comparatively slight, whereas that due to aneurysm is boring, persistent, and severe. I have seen the recurrent laryngeal nerves involved in several cases of œsophageal stricture due to malignant disease. The cadaveric position of the right vocal cord would certainly be in favour of malignant disease. As regards the left side, the aneurysmal sac which compresses the œsophagus is usually too low down to catch the left recurrent, so that the cadaveric position of the left cord is more likely to be due to malignant disease than to aneurysm. Then it should be remembered that pressure upon the left bronchus with all its results is a very common effect of aneurysm of the descending thoracic aorta.

In the early stage of the erosion of the vertebræ by an aneurysm the pain and tenderness thereby produced may lead to an erroneous diagnosis of other diseases affecting the spine. [38] The two most common are tuberculosis and the

invasion of a malignant new growth. On the present occasion it must suffice to mention the difficulty, and to suggest that the presence of Wassermann's reaction would be in favour of aneurysm. The X rays should, of course, be employed; careful investigation of the back should be carried out, and any bulging of the ribs should suggest the presence of an aneurysm.

It seems to be probable, though I can bring forward no actual proof, that the thoracic aorta may pulsate and give rise to the suspicion of an aneurysm, much in the same way as occurs in the abdominal aorta. The most graphic account of the latter condition we owe to the pen of Sir James Paget.[39] He pointed out that this mimicry is most frequent in the abdominal aorta, but he said that it was not very rare in the subclavian, innominate, and carotid arteries, and is sometimes not easy of diagnosis. In patients complaining of pulsation in the chest, if the innominate, carotids, and subclavians, in the absence of aortic regurgitation, are all found to be throbbing, then we may suspect that the sensation of pulsation in the chest may be of a functional nature. Aortic insufficiency may very closely simulate aneurysm; the greatly enlarged left auricle and widened aorta may cause increased dulness.

Should the aneurysm fail to reach the chest wall there may be, in the absence of an X ray examination, considerable difficulty in recognising its existence. If, however, it be of a large size it may be possible to diagnose it by the extent and intensity of the bruits or sounds which are audible over the chest. Take, for instance, a case in which there are stridulous breathing of a tracheal character and dysphagia. Here we have the evidence of pressure upon the trachea and œsophagus. This may be due either to aneurysm or a new growth. If the heart sounds or bruits are widely transmitted over the chest, the presumption is almost certain that we have to do with an aneurysm. In the absence of this diffusion we should naturally think of a new growth.

In considering the difficulties of diagnosis the question of an abnormal arrangement of the aorta must be borne in mind. Dr. Herringham[40] has recorded "a case where a right aortic arch passed behind the œsophagus to the left side, and becoming dilated, killed the patient by slow compression of the trachea." The occurrence in this case of paralysis of the right recurrent laryngeal nerve with equal pupils, together with dyspnœa and stridor evidently due to something compressing the trachea, presented a grouping of symptoms which it was difficult to explain. At the necropsy it was found that the right recurrent laryngeal nerve, turning under the aortic arch instead of the subclavian, had become thickened and adherent to the dilated artery. This explained both the right-sided laryngeal paralysis and the escape of the fibres of the second dorsal nerve to the eye.

Among the specimens in the exhibition of aneurysms at the discussion on the Surgical Treatment of Aneurysms by the Surgical Section of the Royal Society of Medicine[41] was one which illustrates a very rare difficulty in diagnosis—a difficulty, indeed, which seems almost insuperable. An aortic aneurysm was so closely simulated by a dilated pulmonary artery that the left common carotid artery was tied, and apparently with benefit. Death occurred years afterwards from phthisis, and the aorta was found to be unaffected. The specimen is in the Museum of St. George's Hospital.

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ECZEMA ORIS AS A MANIFESTATION OF CONGENITAL SYPHILIS.

BY LEONARD FINDLAY, M.D., D.SC. GLASG.,
ASSISTANT TO PROFESSOR OF MEDICINE, GLASGOW UNIVERSITY; DISPENSARY PHYSICIAN, WESTERN INFIRMARY, AND SICK CHILDREN'S HOSPITAL, GLASGOW;
AND
H. FERGUSON WATSON, M.B., CH.B. GLASG., L.R.C.P. & S. EDIN.,
ASSISTANT TO PROFESSOR OF MEDICAL JURISPRUDENCE, ANDERSON'S COLLEGE, GLASGOW; LATE MEDICAL OFFICER, OUTDOOR DEPARTMENT, SICK CHILDREN'S HOSPITAL, GLASGOW.

MANY and varied are the pathological lesions ascribed to congenital syphilis. There is, however, one form of skin disease which, so far as the literature reveals, has not been so considered, and which we propose to designate "eczema oris syphilitica." Our attention was quite recently directed to the condition in a boy suffering from infantile paralysis by the dispensary sister inquiring, in view of his mother having had a miscarriage, if the eczema round the mouth could not be syphilitic in nature. The boy presented no specific stigmata, and no history of anything suggestive of syphilis in infancy could be elicited, yet in both his mother and himself the blood was found on examination to react very strongly to Wassermann's test.

In its most typical form the lesion is situated at one or both angles of the mouth and radiates therefrom towards the cheek, sometimes in the form of fan-shaped patches. It may, however, completely surround the mouth and implicate the face extensively. The patches are somewhat irregular in shape with sharply cut or ill-defined margins. They are red in colour, at times the hyperæmia being very marked. The surface is, as a rule, dry and scaly, although occasionally, and especially during an exacerbation of the mischief, there may be some discharge with the formation of crusts, and at this period there is always a certain degree of induration. The eczematous patch is continuous with, and frequently invades, the mucous membrane of the lip, giving it a slightly papillary appearance. The lips themselves may be swollen to a greater or less degree. A similar condition round the nostrils, where there is usually a greater tendency to moisture, and eczema tarsi are also present in a proportion of the cases. It is a most obstinate and chronic malady, never entirely disappearing, though varying much in severity from time to time.

So far as our experience goes the patients do not as a rule present any specific stigmata, and the proof that the lesion is of a syphilitic nature rests on the presence of a positive Wassermann reaction and on the result of anti-specific treatment. In 5 out of 21 cases, however, definite specific stigmata—e.g., deafness, notching of the upper central incisors, "saddle nose," or cicatrices round the mouth—were present.

It is a most characteristic condition, and when once appreciated can apparently be diagnosed with certainty. Practically all the cases were selected from large numbers of children visiting the out-door department of a children's hospital, and were diagnosed on clinical grounds alone as this variety of eczema oris, the blood being examined afterwards along with other specific and non-specific sera. Although so far we have only collected some 21 cases, the results of the Wassermann test have been so consistent that we feel convinced that the syphilitic virus must play a definite etiological rôle.

The diagnostic features on which we lay most stress are the chronicity, but more especially the situation of the lesion at the angles of the mouth with implication of the mucous membrane of the lips. As illustrating this point we may be permitted to relate our experience in East Park Home for Cripple Children. Through the kindness of Dr. R. Wilson Bruce, the visiting physician, we were permitted to examine the cases in that institution, and from the 131 inmates 6 were selected as probable examples. On the day of the examination of the blood the sister informed us that she had discovered other two cases. On personal inspection, however the eczema in both these patients was not found to involve the angle of the mouth, though otherwise the patches did not differ in appearance from those present in the rest of the children. The blood in both of these instances reacted negatively to Wassermann's test, thus

TABLE I.

—	Doses of complement.								Dates of Wassermann tests.
	4	6	10	12	15	Result.	2	4	Sept. 14th, 1912.
	Lecithin and cholesterin emulsion.						Serum controls.		
Case 13	Marked lysis.	Marked lysis.	Very marked lysis.	Very marked lysis.	Very marked lysis.	Positive.	Complete.	—	—
Negative control	Complete.	—	—	—	—	—	Complete.	—	—

TABLE II.

—	4	6	8	10	13	Result.	1½	3	Nov. 12th, 1912.
Case 1	No lysis.	No lysis.	No lysis.	No lysis.	No lysis.	Positive.	Complete.	—	—
Negative control	Almost complete.	Complete.	—	—	—	—	,,	—	—

TABLE III.

—	3	5	7	10	14	Result.	1	2	Nov. 15th, 1912.
Case 7...	No lysis.	No lysis.	No lysis.	No lysis.	No lysis.	Positive.	Complete.	—	—
Negative control	Complete.	—	—	—	—	—	,,	—	—

TABLE IV.

—	3	5	8	12	16	Result.	2	4	Dec. 3rd, 1912.
Case 14	No lysis.	Faint trace.	Faint trace.	Distinct.	Distinct.	Positive.	Very marked.	Just complete.	—
The mother in Cases 2 and 3	,,	No lysis.	Distinct.	,,	,,	,,	,,	,,	—
Case 3	Very marked.	Just complete.	—	—	—	Negative.	,,	,,	—
Negative control	Complete.	—	—	—	—	—	,,	,,	—

TABLE V.

—	5	7½	10	14	20	Result.	2	4	Dec. 11th, 1912.
Case 10	No lysis.	No lysis.	Trace.	Just complete.	—	Positive.	Marked.	Just complete.	—
Negative control	Just complete.	—	—	—	—	—	,,	,,	—

TABLE VI.

—	2½	4	6	9	11	Result.	1	2	Dec. 12th, 1912.
Case 11	No lysis.	No lysis.	No lysis.	Marked.	Very marked.	Positive.	Almost complete.	Complete.	—
Negative control	Complete.	—	—	—	—	—	,,	,,	—

TABLE VII.

—	4	6	7	10	14	Result.	1½	3	Dec. 16th, 1912.
Case 12	Trace.	Trace.	Marked.	Very marked.	Almost complete.	Positive.	Very marked.	Almost complete.	—
Negative control ...	Almost complete.	—	—	—	—	—	,,	,,	—

TABLE VIII.

—	2	4	6	9	11	Result.	1	2	Dec. 20th, 1912.
Case 2	Trace.	Almost complete.	Complete.	—	—	Negative.	Just complete.	—	—
Negative control	,,	,,	,,	—	—	—	Very marked.	Just complete.	—

TABLE IX.

—	Doses of complement.								Dates of Wassermann tests.
	2½	3½	5	7	10	Result.	1	2	
	Lecithin and emulsion.						Serum controls.		Dec. 17th, 1912.
Case 8...	No lysis.	No lysis.	No lysis.	No lysis.	No lysis.	Positive.	Marked.	Complete.	—
Negative control	Complete throughout.						,,	,,	—

TABLE X.

—	2½	4	6	9	11	Result.	1	2	Dec. 27th, 1912.
Case 9	No lysis.	No lysis.	No lysis.	No lysis.	No lysis.	Positive.	Complete.	—	—
Negative control	Complete.	—	—	—	—	—	,,	—	—

TABLE XI.

—	3	6	8	12	14	Result.	3	6	Jan. 21st, 1913.
Case 4...	No lysis.	No lysis.	No lysis.	No lysis.	No lysis.	Positive.	Almost complete.	Complete.	—
Case 5...	,,	,,	,,	,,	Faint trace.	,,	,,	,,	—
Case 6...	,,	,,	,,	,,	No lysis.	,,	Just complete.	—	—
Negative control	Complete.	—	—	—	—	—	Complete.	—	—

TABLE XII.

—	4	6	9	12	17	Result.	1½	3	Jan. 25th, 1913.
Case 16	No lysis.	No lysis.	No lysis.	No lysis.	No lysis.	Positive.	Just complete.	Complete.	—
Case 15	,,	,,	,,	,,	,,	,,	Very marked.	,,	—
Case 17	Trace.	Trace.	Marked.	Almost complete.	Complete.	,,	Complete.	,,	—
Case 18	,,	,,	Very marked.	,,	—	—	Just complete.	,,	—
Case 20	Marked.	Marked.	,,	Just complete.	—	Positive.	,,	,,	—
Case 19	No lysis.	No lysis.	Faint trace.	Faint trace.	Trace.	,,	Almost complete.	,,	—
Negative control	Almost complete.	—	—	—	—	—	Complete.	—	—

TABLE XIII.

—	3	5	7	9	12	Result.	1½	3	Feb. 1st, 1913.
Case 21	No lysis.	No lysis.	Faint trace.	Marked.	Complete.	Positive.	Just complete.	Complete.	—
Negative control	Complete.	—	—	—	—	—	Complete.	—	—

substantiating our thesis that the localisation is an important diagnostic feature. It is unfortunate that we did not have an opportunity of examining the blood in another member of the family to which these children belonged, since it is just possible, though we think unlikely, that a syphilitic infection of the family, as in Cases 2 and 3, might have been demonstrated.

As will be seen from a survey of the clinical summaries (in which list all the cases diagnosed clinically are included) the Wassermann reaction was positive in all but two patients, and in every mother examined, including the mother of the two boys (Cases 2 and 3) who reacted negatively, a positive reaction was also obtained. Thus in 100 per cent. of the cases there is positive evidence of syphilitic infection, which is surely sufficient to warrant us in our proposition that this variety of eczema owes its origin to the syphilitic virus. With one exception all the patients were the subjects of the congenital form of the disease. That it also occurs in acquired syphilis is shown by Case 11, but with what degree of frequency we are at present unable to say, since our opportunities for observing the condition have been practically limited to children.

We append in tabular form after the clinical histories the detailed results of the examination of the blood in each case, and compared them with a known negative control.

CASE 1.—Male, aged 4½ years. Father alive and well (not seen). Mother suffered shortly after marriage from sore throat, rash on body, and alopecia. Three pregnancies: first, a boy, now aged 12 years, and well; second, a miscarriage at six weeks (11 years ago); third, the patient. The latter was a healthy child at birth. When 18 months old he developed impetigo of the face, and since then has been subject to an eczema of the upper lip and round the mouth; it varies much in severity, but never entirely disappears. He developed infantile paralysis of the right leg one year ago. There are no specific stigmata. At both angles of the mouth are patches of eczema. The skin is hyperæmic, discharging slightly with the formation of crusts, and is definitely infiltrated. The eczema is continuous with the mucous membrane of the lips. There is no other patch of eczema on the face. With the exception of the paralysis of the right leg there is no other abnormality. The Wassermann reaction was positive in mother and child. The child was treated by mercurial inunction and

intramuscular injections of neosalvarsan, with the result that his eczema greatly improved and the blood ultimately reacted negatively to Wassermann's test.

CASE 2.—Male, aged 4 years. Father alive and well (not seen). No history of syphilis in mother. Four pregnancies: first, a boy, now 11 years old (has eczema oris); second, a girl, now aged 5 years, well; third, the patient; fourth, a miscarriage at six weeks. The patient was a healthy child at birth. Nothing suspicious of syphilis in infancy. Since infancy he has been subject to a roughness of the skin round the mouth. It has always been specially severe at the angles. There are no specific stigmata. At the right angle of the mouth is a patch of dry scaly eczema, which implicates the mucous membrane of the lip. On the forehead is a small area of what might be called seborrhœic eczema; otherwise the child is quite healthy. Wassermann reaction negative, but mother gives a positive reaction.

CASE 3.—Brother to patient in Case 2, aged 11 years. He came under observation for abdominal pain, when it was observed that he, like his brother, was suffering from an eczematous condition round the mouth involving the mucous membrane and situated at both angles. He had in addition numerous seborrhœic patches over the face. There were no specific stigmata. Wassermann reaction negative.

CASE 4.—Male, aged 6 years. Father and mother alive and well. No history of syphilis in mother. Four pregnancies: first, a girl, now 8 years of age, well; second, the present patient; third, a boy, now aged 5 years, well; fourth, a girl, now aged 3 years, well. No miscarriages. The patient was a healthy child until a year ago, when he developed measles, and since then he has been frequently dull and out of sorts. No specific stigmata. There is a well-marked eczema tarsi and an eczematous condition round the mouth involving both angles. That round the mouth is dry and scaly and continuous with the mucous membrane of the lips, which are slightly swollen. On the forehead is a small scurfy patch. Examination of the chest and abdomen revealed nothing abnormal. Wassermann reaction positive in mother and child. Child rapidly improved with antispecific treatment.

CASE 5.—Male, aged 10 years. Father and mother alive and well. No history of syphilis in mother. Eleven pregnancies: first, a girl, now aged 21 years, well; second, twin boys, who died at three months; third, a girl, who died at the age of 5 years from tuberculous peritonitis; fourth, a boy, now aged 16 years, well; fifth, a girl, now aged 14 years, well; sixth, a girl, now aged 12 years, well; seventh, the present patient; eighth, a boy, who died at the age of 3 years from whooping-cough; ninth, a girl, now aged four years, well; tenth and eleventh, miscarriages at three months. The patient was a healthy child when born and remained so until 9 months of age, when, after circumcision, he commenced to be troubled with his face and hands "breaking out." Nothing suspicious of syphilis in infancy. A well-developed boy. No specific stigmata. Over face is an extensive dry scaly eczema with its seat of maximum intensity round the mouth. At both angles there is some fissuring with exudation. The condition merges gradually into the mucous membrane of the lips. There is eczema tarsi of the left eye. With the exception of some pharyngitis and bronchitis no other abnormality is detected. Wassermann reaction positive.

CASE 6.—Male, aged 8 years. Father and mother alive and well. No history of syphilis in mother. Six pregnancies: first, the patient; second, a boy, who died at three months from convulsions; third, a boy, who died at 12 months from measles; fourth, a girl, who died at 14 days from thrush; fifth, a boy, now aged 3 years, well; sixth, a girl, who died at 8 months from marasmus. No miscarriages. With the exception of chorea 3 years ago the patient has always enjoyed good health. For the past two days he has been troubled with vomiting and diarrhœa. A well-developed boy. No specific stigmata. At right angle of the mouth is a fan-shaped patch of eczema, which is continuous with and implicates the mucous membrane of the lip. Wassermann reaction positive in mother and child.

CASE 7.—Male, aged 10 years. Father and mother alive and well. No specific history in mother. Seven pregnancies: four children living, two dead, one miscarriage (last pregnancy). The patient came under observation for abdominal pain, when flame-shaped patches of eczema at both angles of the mouth were detected. There are no specific stigmata. Wassermann reaction positive in mother and child.

CASE 8.—Female, aged 17¼ years. The father is in an asylum. The patient has specific stigmata in the form of "saddle nose" and scarring round the mouth. The teeth are normal. At both angles of the mouth is a patch of eczema involving the mucous membrane. Wassermann reaction positive.

CASE 9.—Male, aged 6 years. Father and mother dead. Mother had nine abortions, and the patient was the last and only living child. He is thin and pale, and has interstitial keratitis and scarring about the mouth with notching of the upper central incisors. There is extensive eczema round the mouth with implication of the mucous membrane. Wassermann reaction positive.

CASE 10.—Female, aged 17½ years. The patient is a subject of congenital syphilis, as shown by notching of the upper central incisors and "saddle nose." For some years she has suffered from recurrent eczema at the angle of the mouth with much scarring. Wassermann reaction positive.

CASE 11.—Female, aged 16½ years. Father and mother alive and well. Two pregnancies: first, twin sisters, both of whom have suffered from acquired syphilis, and give a positive Wassermann reaction; second, twin boy and girl—the boy died two hours after birth, and the girl is the patient. One year ago she contracted a labial sore, which was followed by a general cutaneous eruption and alopecia. Nine months ago an eczematous patch appeared at the left angle of the mouth; it varies in severity, but never entirely disappears. There are no specific stigmata. Wassermann reaction positive.

CASE 12.—Male, aged 11 years. Mother alive and well and gives no history of syphilis. She has had nine pregnancies, one of which terminated in a miscarriage at three months. The patient is a poorly developed, pale, and emaciated boy, subject to recurrent attacks of bronchitis, for which he came under observation. There are no specific stigmata. He suffers from an eczematous condition round the mouth, which no sooner heals than it breaks out again. Wassermann reaction positive in mother and child, and also in two other apparently healthy members of the family.

CASE 13.—Male, aged 8 years. Father and mother dead, and the patient is the only child alive of a family of 11. There are no specific stigmata. Since he was 2 years old he has suffered from a recurrent eczema situated at both angles of the mouth. Wassermann reaction positive. Great improvement with antispecific treatment.

CASE 14.—Female, aged 10 years. An illegitimate child; parents unknown. Situated at the right angle of the mouth is a patch of eczema, involving the mucous membrane of the lips which show marked scarring. The bridge of the nose is flat, and both upper central incisors are definitely notched. Wassermann reaction positive.

CASE 15.—Male, aged 8¼ years. Mentally defective child. He can walk but very unsteadily and easily falls. The head is large, with prominent frontal bosses and marked furrow between, suggesting natiform cranium. Round the mouth is much scarring and a persistent eczematous condition, which is moist and involves the mucous membrane of the lips. The eczema is specially severe at both angles. The palate is unduly arched and the left upper central permanent incisor, which is just appearing, shows definite notching. The patient is deaf. Wassermann reaction positive.

CASE 16.—Male, aged 5¼ years. Developed left-sided hemiplegia at 1½ years. He is feeble-minded and very excitable, and if he receives a fright falls down unconscious with convulsive movements, which are limited to the muscles of the face. He is a poorly developed boy, with a spastic paretic condition of the left arm and leg. The appearance of the face is what would be described as typically scrofulous. There is an eczematous condition of both eyelids, a chronic rhinitis with excoriation of the skin round the nostrils, swollen lips with ulceration at both angles of the mouth, and over the face several dry scurfy patches of dermatitis. No specific stigmata. Wassermann reaction positive.

CASE 17.—Male, aged 7 years. The patient is the subject of paraplegia, the result of infantile paralysis. There are no specific stigmata. He is subject to a persistent eczematous condition round the mouth, in consequence of which the lips are considerably swollen. The eczema is continuous with the mucous membrane and varies much in severity from time to time. Wassermann reaction positive.

CASE 18.—Male, aged 6 years. Severe case of rickets. No specific stigmata. The patient is subject to a dry eczematous condition of the skin round the mouth; it is most severe at the right angle, where it is continuous with the mucous membrane. Wassermann reaction positive.

CASE 19.—Female, aged 6 years. Severe case of rickets. No specific stigmata. This patient is also subject to an eczematous condition round the mouth. The mischief is most extensive at the angles where it is definitely continuous with the mucous membrane. Wassermann reaction positive.

CASE 20.—Female, aged 11 years. The patient is suffering from spinal caries affecting the mid-dorsal region. She is deaf in the left ear, the result of otitis media three years ago. There are no specific stigmata. There is a patch of dry eczema at the left angle of the mouth involving the mucous membrane. It varies much in severity, but never entirely disappears. Wassermann reaction positive.

CASE 21.—Male, aged 2 years. At breast until 9 months old; commenced to get teeth at 8 months; walked at 13 months. No history of syphilis in infancy. Always enjoyed good health until May, 1912, since when, however, he has been troubled with his face and eyes "breaking out." Father and mother alive and well. No history of syphilis in mother. Two pregnancies: first, girl, now aged 5 years, well; second, the patient. No miscarriages. A fairly well-developed boy. There are no specific stigmata. All over the face are patches of eczema, which is moist in places. There is rhinitis, with excoriation of the skin round the nostrils and swelling of the upper lip. There is also a very severe ophthalmia tarsi of both eyes, with corneal ulceration in the left. At present there is no eczema at the angles of the mouth, but the mother asserts that such is very frequently present. In short, the facial appearance is typical of what is described as scrofula. Wassermann reaction positive in mother and child. The latter improved rapidly on antispecific treatment.

A review of the literature inclines us to the opinion that this condition has usually been classed along with pityriasis sicca, seborrhœic dermatitis, scrofulous eczema and tuberculous eczema, and, except for its localisation, and perhaps also its persistency, one could not differentiate it from these other varieties of skin disease. In view of its association with eczema tarsi, eczema round the nostrils, and in the neighbourhood of the lobes of the ears, it would seem to us not improbable that some of the cases of so-called scrofula are in reality examples of congenital syphilis, and recently we have come across one or two cases which tend to confirm that view. The material at present at our disposal, however, is not sufficient to enable us to say whether this so-called scrofulous eczema is as constantly a manifestation of the syphilitic infection as eczema oris seems to be, and in the meantime we are content to merely raise the question.

THE ROYAL INSTITUTE OF PUBLIC HEALTH.—In connexion with this institute a congress will be held at Paris from May 15th to 19th, under the presidency of Lord Beauchamp. The section of State Medicine will be presided over by Dr. E. W. Hope, Municipal Hygiene by Professor Gariel, Bacteriology and Comparative Pathology by Dr. G. Dryer, Child Study and Eugenics by M. Lucien March and Dr. Mathieu, Naval, Military and Colonial by Major Sir Ronald Ross, and Industrial Hygiene by Sir Thomas Oliver. The general honorary secretary in Paris is M. Marie Davy, 5, Avenue d'Orléans, and in London Captain Corbett-Smith, R.F.A. (Special Reserve), 37, Russell-square, W.C. Special arrangements have been made with regard to social functions and travelling and hotel accommodation.

THE RELATION OF PUBERTY AND THE MENOPAUSE TO NEURASTHENIA.[1]

BY H. MACNAUGHTON-JONES, M.D., M.CH.Q.U.I., M.A.O., F.R.C.S. IREL. & EDIN.

To review the facts which have a practical bearing on the application of the information we already possess so that there will be a distinct gain in the treatment of the condition discussed, or to elicit views which may add something new to our knowledge of the subject under consideration, are the two objects to be aimed at in any discussion of a medical nature such as the present. If neither of these ends be attained, then we are wasting our time and might be more profitably engaged by an arm-chair study of the subject at home.

We are met to consider the physical and psychical phenomepa which at two critical and eventful periods of a woman's life influence her mentally and physically. We might call the years through which she is then passing the *epoch-making* ones of her life. The medical study of those years, in the light it throws on certain propensities and acts of the woman, has a most important relation to her attitudes to her entire social environment. Medicine, therefore, has here not merely a distinct function to discharge as regards the individual, but by the wise and tactful attitude assumed to relatives and friends in the ethical, moral, and eugenical difficulties that often arise, its influence is largely sociological, and spreads to circles wider than we have any idea of. I attempt to take only a "bird's-eye" view of the many questions involved. Condensation will necessarily entail but scant reference to some, but I shall select those that appear to me the most important from the clinical point of view in diagnosis and treatment. I shall follow the same order in dealing both with puberty and the menopause: (*a*) The physiological phenomena attendant upon both. (*b*) The pathological conditions which influence health at these times. (*c*) The general principles of treatment, preventive and therapeutic, when neurasthenic symptoms declare themselves.

The entire view we take of the subject depends on what are the conditions or main symptoms to which individually we apply the term neurasthenia. Can we so sharply draw the line of differentiation between the "psychasthenia" of Pierre Janet, the "phrenasthenia" of Dana, and the "neurasthenia dependent on brain fatigue" of Barker, as to regard these as distinct clinical states? Or do they not all at times merge into each other, and, for practical purposes, is it not best to regard them as constituting a clinical group in which but shadowy borderlands exist between one member of it and another, and in which it is occasionally, indeed frequently, impossible for us to delimit by any boundary line the features peculiar to any one of them? I suppose in the whole vocabulary of medicine no terms are more loosely and erroneously used than those of "neurotic" and "hysterical." This is particularly true when it is a woman to whom they are applied. And if no other gain came out of this meeting than a resolution on the part of all here to discontinue their casual employment it would be sufficient to justify its being held. The misery and unhappiness that have accrued to sensitive women through the misuse of these terms cannot be computed, and is all the more serious since the ignorant lay mind has become familiar with and places an entirely wrong interpretation on them. And so the girl or woman with uncontrollable sensations and feelings is regarded as a *malade imaginaire*, as fanciful of aches and pains—and said generally to be "nervous"—while all the time there are actual physiological anomalies of function or pathological states of the sexual organs which require to be treated and rectified.

In this survey I shall confine my remarks to that association of symptoms which does not come under the head of hysteria, and not include, further than by a very brief reference, those disorders of mentalisation which it is rather the province of the alienist to deal with.

I am, then, referring to a dual-sided condition, whether it be present during the pubertal years or those of the climacteric, in which are blended certain physical subjective and objective symptoms, and which may or may not be associated with psychoses that lead us from the neurasthenic to the psychasthenic phase of neurasthenia. True, the psychic phase may pass the borderland, and we are confronted with minor types of apprehensive delusion or illusion, unnatural antipathies and the morbid obsessions that lead to erratic conduct. As I have said, we are not dealing with these.

Anxious to have the authoritative opinion of a few of our leading alienists I addressed some queries to them on these points:—

(*a*) The relationship of the phenomena of puberty to more serious disorders of mentalisation.
(*b*) The comparative frequency of mental disturbance at the menopause in the married and unmarried; the influence of child-bearing, and the more active predisposing causes.

From the replies that I have had from Sir Thomas S. Clouston, Dr. R. Percy Smith, Dr. D. Yellowlees, Dr. F. R. P. Taylor (East Sussex Asylum), and Dr. Percy J. Baily (Hanwell), and the work of Sir George Savage, I draw these conclusions:—

(*a*) It is difficult, in the absence of statistics, to speak authoritatively as to the relation of the pubertal period to insanity, but the frequency of outbursts before or during the menstrual epoch establishes clearly a connexion between the two. On the other hand, first attacks between the ages of 17 and 20 are not uncommon.
(*b*) On the whole it would appear that climacteric insanity is more frequent in the unmarried and married women who have not borne children. The other predisposing factors in order of importance are—heredity, previous attacks (especially puerperal), alcoholism, and drug habits.

It has also to be remembered that the type of disturbance which has been present during puberty and early life is apt to recur at the advent of or during the climacteric.

Puberty.

First, let us turn our attention to *puberty*. Climate and environment materially affect the appearance of menstruation. The average age in this country is between the thirteenth and fifteenth year, usually earlier in warm and delayed in cold climates, but always liable to variations. Sometimes it occurs as early as the eleventh or twelfth year, or even earlier, and, on the other hand, is delayed to the seventeenth or even the twentieth year. I have treated a child of 8 for menorrhagia and have delivered a girl of 10 years. Heredity would seem to influence its appearance or non-appearance in some instances; so do infective diseases and tuberculosis, while there are sundry constitutional states, as anæmia and chlorosis, congenital cardiac anomalies, spinal affections, chorea and neuroses of digestion, which affect pubescence. Here we draw our first important lesson—viz., that in the developing child such predisposing factors as are likely to affect the physiological output of nervous impulses during pubescence should receive attention, and that relatives and those in charge of the girl should realise that the entire future of the woman may depend on their rectification. Before considering the nervous deviation from health more frequently encountered during puberty let us very briefly touch on the physiological changes which occur in the generative organs at the time.

It must suffice to categorically recall a few facts connected with the periodical sexual wave cycle (*Wellenbewegung*). At most times there are in varying degrees in different women circulatory, nervous, and secretory disturbances as seen in the effect on cardiac rhythm or frequency, respiration, body temperature, blood pressure and coagulability, the calcium content and proportionate fibrinogen and hæmoglobin in the blood. Without entering into the debated question of the part played by the ovarian secretion and lutein in the economy generally, outside the fertilisation of the ovum and the receptive uterine changes, it is certain that it has wider influences not only in regard to the sexual organs themselves but outside them, as shown in its action on the osseous system and on the mammary gland.[2]

The whole question of the physiological influence of the ovarian secretion in its relation to menstruation and ovulation, before and after sexual maturity, is still more or less in a nebulous phase of development. No one in the United Kingdom has done more exact original research in this direction than Miss Louise McIlroy. Her communication,

[1] Being a paper read before the Chelsea Medical Society on March 18th, 1913.

[2] See the Physiological Influence of Ovarian Secretion, by Dr. A. Louise McIlroy, Proceedings of the Royal Society of Medicine, 1912, vol. v., pp. 342-370. Dr. McIlroy's researches are full of interest.

made last year to the Royal Society of Medicine,[1] is full of interest. While conclusions cannot be drawn as to the exact differentiation of the action of the ovarian constituents, certain general results, physiological and therapeutical, have been arrived at which are of importance. Ovulation and menstruation have important effects on the metabolism of the pelvic organs generally, and through these influences on that of other organs; also on the circulatory and nervous systems generally. These effects are due to the ovarian secretion, regarding the ovary as a ductless gland; though the lutein extract would appear to play the major part in the rôle of clinical phenomena and therapeutical action. There would appear to be a correlation between the physiological influence of the thyroid gland and the ovary. Consequently, thyroid extract has been administered with benefit for some symptoms, and Miss McIlroy quotes a case of premature menopause in which menstruation was perfectly restored after treatment with this. Personally, in some cases of menopause disturbance and neurasthenia, I have had good results with various ovarian preparations, and, on the other hand, have been disappointed.

When the first menstrual epoch occurs the correlated structural changes which have been simultaneously preparing both the ovary and uterus for the act have reached completion; the ovaries rather than the uterus, as formerly said, become the woman. The evolution of the corpus luteum and the effects of the lutein secretion appear side by side with developmental changes in the external genitalia and the breasts. With these are associated distinct physical developments in the body framework, osseous and muscular, and corresponding demands on the general organic metabolism. It is true that the outward and visible sign of menstruation may not accompany the maturation of the egg, and yet all the physiological effects of ovulation be present. But in the great majority of cases absence of the uterine function—primary amenorrhœa—is dependent either on some congenital abnormality of the genitalia or a pathological divergence from health. The ovaries may be healthy while there is uterine displacement, aplasia, atresia, or absence; the ovaries may be unhealthy or absent and the uterus normal. The entire genitalia may be abnormal in development or absent. If these causes be not present we may find the source of the amenorrhœa in some constitutional error, as anæmia or tuberculosis.

In the pre-pubertal years premonitory warnings often indicate the tendency to neurasthenic or psychasthenic states before menstruation commences. The precocious, restless, hypersensitive child is troubled with slight choreic movements, ocular migraine, refractive errors, or attacks of *petit mal*, nightmare, or somnambulism. Any of these nervous symptoms may follow in the train of such conditions as muscular weakness and fatigue, cardiac irregularity, rheumatism, scoliosis and spinal pain, the ill-development attendant on naso-pharyngeal obstruction, the consequences of poliomyelitis or the results of hereditary syphilis in an organ of special sense. Every nervous ill and weakness is accentuated by masturbation. The frequent and unnatural excitation of the sexual organs reacts on the sexual centre, and morbid imaginative impulses are excited with consequent fits of mental depression and sense of fatigue—and the erotic girl merges into neurasthenic womanhood. All such influences are accentuated previous to and at the time of the menstrual epoch, and are still more pronounced if there be dysmenorrhœa with ovarian crises of pain. On the one hand, there may be scanty flow; or menorrhagia and weakening loss on the other.

To what conditions should we limit the application of the term *pubertal neurasthenia*, in which I include the borderland symptoms of psychasthenia? I should group these thus: complaints of fatigue and disinclination to work and recreation, with general apathy; irritability of temper and capriciousness; inability to concentrate attention; neuralgias; erratic and shifting pain in the head, spine, and left intercostal region; capriciousness in or morbid appetite; gastric neurosis; urinary irritation and frequency. Following on these psycho-physical symptoms come the more purely psychic, morbid imaginings and causeless apprehensions, fanciful ailments, groundless resentments and dislikes of relatives or friends, unconquerable erotic impulses, and religious fervour and obsessions.

[1] Proceedings of the Royal Society of Medicine, vol. v., pp. 342-370.

The Menopause.

We now turn to the autumn time of the woman's life. Her spring and summer have gone by; as in the plant, when flower- and seed-time have passed, she is entering on that which precedes the "fall," that ushers in the frosty, but kindly, winter of old age. The interference with, and the cessation of, her rhythmic monthly egg-laying, which has been occurring for some 30 to 35 years, affects profoundly, more in some, less in others, the entire fabric, mental and physical, of her being. Nature is kind to the majority and imperceptibly leads up to the impending stoppage, and prepares the system for the change, so that they pass through it with comparatively little trouble. To them the harder experiences of the less fortunate of their sex are unknown. To some of the latter, however, it is, in the widest sense, a true "change of life." Let us for a moment, in the briefest manner, see what befalls her. Women know to their cost of men and men of women what they mean by the term *temperament*, which is largely mixed up with what we call disposition. Temperament largely influences their mental attitudes, both in their personal introspections and their external relationships.

The stable woman of normal temperament, with an automatic and inherent power of self-control, might belong psychologically and physically to a different species, comparing her with one of the "nervous" "lymphatic" type. When will is habitually subservient to feeling and emotion; when energy has been diverted into morbid channels or dissipated in phantom introspection and excitation; when indolence and lethargy have tended to the constant survey of ills, real or fanciful, whether mental or physical; when the story of life has been that of a sensual and voluptuous living on the one hand, or written on the pages of its seamy side struggle, suffering, and endurance, on the other; when vitality is lowered and power of resistance lost,—under any of these conditions how very differently does the woman approach the menopause and face the physiological crisis it involves. Then normal anabolic processes cease, abnormal katabolic ones start; the metabolism of the important diverting function of generation comes to an end, and with it all those rather obscure correlations of uterus and ovary in egg formation and menstrual flux which have rhythmically expended sexual and generative energy during her previous life. We cannot wonder that it is out of some such groups that we usually find the victims of climacteric neurasthenia come. The congenitally defective child grows into the pubertal weakling, and the lop-sided girl becomes the climacteric neurasthenic. I use the term lop-sided deliberately, for assuredly it is the same asymmetry that we find in the one-sidedness of the crystal and its right- or left-handed polarisation, as we see in the human mind, when one group of mental impulses outbalances the other and there is no inherent molecular influence to neutralise the one-sided diversion of mental force.

In its bearing on neurasthenia it is well to remember that an early menopause, say at the years of 30 or 35, sometimes occurs. Mental shock may cause permanent and abrupt stoppage. It is not unusual to find it delayed to over 50, though so late a time as 60 is very rare. Contemporaneously come the atrophic and degenerative changes in the ovaries, uterus, and external genitalia.

An artificially produced menopause comes under a different category. Personally, while I have often seen various subjective and vaso-motor effects following double oöphorectomy and total hysterectomy, the occurrence of any true neurasthenic symptoms has been very rare. It has to be remembered in this connexion that in the great majority of these cases the normal physiological correlations of the ovaries and uterus have for some time ceased to exist: the ovaries have been passing through gradually increasing stages of degeneration with arrest of function, and the system is, if I may use the expression, educated up to its complete stoppage. Nowadays, when the importance is recognised of leaving or transplanting a small portion of healthy ovary and saving the cervix in hysterectomy, such vaso-motor consequences are rare.

The first important practical point is the differentiation of those symptoms which are common to the climacteric and in no sense appertaining to true neurasthenia. Both during its advent and occurrence women vary greatly in their powers of endurance of pain and self-control, and in their

sensitiveness to any reference to the sexual change. With it come various vaso-motor disturbances, morbid blushes, flushings, attacks of giddiness, tinnitus, retinal hyperæmias, laryngeal neuroses, coldness of the extremities, headache, general languor, ovarian, sacral and coccygeal pain, palpitation, breathlessness, cardiac intermission, digestive errors, and chemical urinary changes in specific gravity, quantity of urea and chlorides. It is only natural that, when any such exciting or depressing causes exist, irritability, or some erraticism of temper, demeanour, conduct, or the assumption of an unusual attitude to friends should occasionally declare itself. It is at such times that the suggestion of some slighting term as "neurotic" becomes unjust and cruel. Any of these states may become aggravated and merge into attitudes of inaptness and irresistible fatigue, of excitability and irritability, or nervousness and apathy, of apprehension and brooding, of antipathies and unwarrantable inferences, together with obsessions as to various ailments and pains, or the fear of the committal of some wrong and sin. Then we are confronted with the truly neurasthenic woman and have to use all our tact and knowledge to prevent a transition into the further alienistic states of "phobias," melancholia, hysteria, hypochondria—in short, some type of actual or borderland insanity.

Principles of Treatment.

There is not time to discuss more than the principles of treatment when neurasthenic symptoms show themselves, either at puberty or the climacteric. There is one cardinal principle so far as the gynæcologist is concerned which must have a first claim on every practitioner who has at either period to treat such a case. "Take nothing for granted" must be his motto. At puberty his judgment will be taxed as to when a pelvic examination is called for and justified, and a decision will have to be made in the presence of persistent amenorrhœa, dysmenorrhœa, menorrhagia, backache, or some vaginal discharge.

It does not do to send a girl to Spa or Schwalbach for amenorrhœa, or to dose her with emmenagogues who has an abnormal introitus, or in whom the uterus or the ovaries are absent; or to treat her with sedatives for dysmenorrhœa when all the time there is a stenosed canal or a retroverted uterus. In the same way, during the menopause, to trifle with the signs of disease in vaginal discharge, hæmorrhage, pain, bowel and bladder complication or locomotor troubles, and to ascribe their presence to a climacteric neurosis and say the woman is a neurasthenic, and then awake to find a uterine or ovarian tumour, malignant degeneration, displaced kidneys or other organic complication, is not a pleasant position either for doctor or patient. The one thing we want to be careful in the neurasthenic girl is any sexual suggestion. To arouse a morbid introspection of the pelvic organs is above all things to be avoided. We have to realise, as insisted on by Sigmund Freud, that there is a causal relationship 'twixt sexual activities and psychic neurosis. So we avoid all experiences that direct attention to these organs. On the other hand, judgment and inquiry from friends will direct when an examination under anæsthesia is called for and the condition of the genitalia has to be ascertained. There is no such difficulty in the instance of a woman for whose complainings we are consulted during the menopause. Examination here, when local signs and symptoms are present, is imperative, and the first step to relieve the nerve disorder is the treatment and cure of whatever associated affection of the genitalia or other organ is present.

Reverting to puberty, having cleared the ground by the elimination of a genital or other source of the nervous phenomena present, the next step is attention to the girl's moral, intellectual, and physical hygiene. This needs a careful inquiry into her domestic and school life, hours of study, confinement, exercise, and recreation. In short, our first therapeutic step is an insight into the temperament of the girl and a critical survey of her environment, removing her from, or neutralising when possible, any harmful sources of mental disquietude, excitation, and irritation. Such mental and moral prophylaxis, aided by general hygienic measures in attention to the bowel, bathing, diet, exercise, and recreation, prepares the way for the rectification of any local disorder or neurosis, and especially the regularity and character of her sexual functions.

In the climacteric our first difficulty is to get hold of the right threads in the tangled skein of physical ailments and mental exaggerations which we have to unravel. By a process of clinical exclusion we separate the real from the fanciful and trace the subjective to its objective origin. Analytically we isolate the sexual, digestive, and nervous disturbances present, and synthetically we piece these together so as to obtain a correct picture of the woman out of the multitude of impressions she is anxious to convey of herself, her ailments, and grievances.

Eliminating the need for any operative interference we are free to deal with the main contributory factors in the neurasthenia of the menopause—menorrhagic and metrorrhagic losses, pain, digestive disturbances and constipation, affections of the special senses, and insomnia. Modern therapeutics and pharmacology furnish us with ample means of dealing specially and successfully with all of these predisposing and sustaining causes of neurasthenia, and with these remedial aids of treatment you are as familiar as myself. I would just add that in the neuroses of the menopause lutein extract is the most important of all the more recent therapeutic remedies. I have used various ovarian preparations. I have had them of use in some cases and been disappointed in others. In neurasthenic conditions I have found bornyval of considerable value, and as nerve sedatives both adalin and bromural.

Harley-street, W.

HYOSCINE-MORPHIA ANÆSTHESIA FOR ALCOHOL INJECTION IN NEURALGIA.

BY WILFRED HARRIS, M.D. CANTAB., F.R.C.P. LOND.,
PHYSICIAN TO ST. MARY'S HOSPITAL, AND TO THE HOSPITAL FOR NERVOUS DISEASES, MAIDA VALE.

THE treatment of severe and intractable trigeminal neuralgia, or tic douloureux, by alcohol injection has now become fully established as the most practical and efficient remedy for this disease, since its first introduction in Munich ten years ago. Schlösser, who first used it, and his followers in other countries, such as Ostwald, Lévy and Baudouin, and Sicard in Paris, and Kiliani, Patrick, and others in America, have all practised the method without the use of any anæsthetic other than a small percentage of stovaine or cocaine mixed with the alcohol, and perhaps a spray of ethyl chloride to freeze the site of skin puncture. I have myself practised alcohol injection for trigeminal neuralgia for nearly five years, and in this period I have thus treated 112 cases of this disease, besides numerous cases of supraorbital and other forms of neuralgia, and I have tried many different methods of making the injection.

From the very first I doubted the possibility of finding with a needle the nerve trunks of the three divisions of the fifth nerve, and of injecting them with alcohol, especially at their deep foramina of exit from the skull, without causing so much pain as to make it a practical impossibility for a large proportion of subjects, especially women of a nervous type and already worn out with pain. I have never used Schlösser's method of reaching the deep foramina, the foramen ovale and foramen rotundum, by intra-oral puncture, owing to the impossibility of sterilising the buccal or pharyngeal mucous membrane or of sealing the puncture made by the needle, and the consequent risk of sepsis. I have always used the route described by Lévy and Baudouin and also by Sicard, in which the needle is thrust through the side of the cheek underneath the zygoma into the zygomatic fossa.

In making the injection for the third division at the foramen ovale, after piercing the skin the needle traverses the masseter and external pterygoid muscles, and very little pain is so far produced, although considerable difficulty will be experienced unless these muscles are relaxed; for this reason nitrous oxide anæsthesia, or even gas and oxygen, is not suitable, owing to muscular spasm induced. If no general anæsthetic is given the patient should be encouraged not to clench the jaws. When the needle has been passed inwards to a distance of about 1½ inches considerable pain is usually experienced, and this is very little diminished, in my experience, by injection of eucaine solution. In some patients, indeed, the pain produced by the manipulation of the needle at this depth while searching for the foramen ovale is sometimes quite intolerable. My practice, therefore, at first was

to do all injections for the foramen ovale in women, and for those men who preferred it, under chloroform anæsthesia. This method has the advantage of complete painlessness, but I have almost discarded it now for two reasons: firstly, that it is impossible to be quite certain when the needle reaches the foramen ovale in the majority of instances, if the patient is quite unconscious; and secondly, that the amount of alcohol injected is quite arbitrary and is not determined by the effect produced of anæsthesia of the lower lip and jaw. I should here like to make a protest against the rapid method of injecting that I am informed is used by some surgeons and others. This method is likely only to bring the treatment into disrepute, as when done in this manner far more often than not the nerve is not hit, no anæsthesia is produced, and the pain may be either not relieved at all or be made much worse. I recognised from the first that the only satisfactory proof that the nerve had been properly injected is anæsthesia of the skin and mucous membrane in the distribution of the nerve. Strong alcohol when injected into the nerve trunk instantly causes destruction of the nerve fibres with which it comes into contact; the clinical evidence of this is anæsthesia of the part to all forms of sensation, and motor paralysis of any muscles supplied by the nerve with motor fibres, and later reaction of degeneration in the electrical testing of these muscles.

Under chloroform it is a difficult and slow process to make certain whether the nerve has been properly injected, and this knowledge can only be obtained by discontinuing the administration of the chloroform and allowing the patient gradually to come round. Then, when the conjunctival reflex has become brisk, the patient will react and show signs of discomfort if pricked sharply with a pin upon the lower lip or chin on the sound side. When this reflex has become definitely established the lower lip on the operated side is similarly pricked, and if no reaction is obtained, after repeating the test, it may be considered proved that the nerve is now anæsthetic and has been properly injected. Occasionally, indeed, it may be found that even after the injection of only 1 c.c. in this manner into the nerve in the foramen ovale there is dense anæsthesia produced over the whole fifth nerve distribution, indicating that the Gasserian ganglion itself has been injected, either by the needle having been pushed through the foramen into the ganglion, or else by the alcohol having infiltrated upwards through the root of the third division into the ganglion. Either of these conditions may occur, as I have shown many times in the dead body, by injecting a solution of methylene blue. This depth of anæsthesia may or may not diminish, after a few minutes or hours, on the first and second divisions—namely, on the forehead, eye, and cheek. When that is the case no harm can result, but if, as may happen, the anæsthesia on the first division remains deep and persistent, then there is the danger of keratitis and ulceration of the cornea from the anæsthesia of the eye. These points, therefore, emphasise the importance of performing the injection while the patient is sufficiently conscious to be able to answer all questions, when tested by the pin for the presence of anæsthesia. I find that a combination of hyoscine and morphine answers the purpose admirably.

As a rule, I give ¼ gr. of morphia with 1/150 gr. of hyoscine hypodermically into the arm 20 minutes before commencing the injection process. In this interval the patient should be made to lie down and keep quite quiet, and encouraged to let sleep come if possible. I have used this method now for a considerable number of cases during the last 15 months, and I have been impressed with the restfulness and apparent absence of all pain during the process. When the needle is approaching the foramen ovale the patient usually shows some symptoms of sensitiveness, though it is not until the nerve is actually struck that a tingling sensation is felt in the lower lip and tongue; when this occurs the stylet should be removed from the needle and a syringe filled with a 3½ per cent. eucaine solution fitted on, and a few drops then slowly injected. If there is considerable resistance to the push of the piston the point of the needle may be within the nerve, but if no resistance is felt the point is certainly not in the nerve, and the needle should then be moved slightly in different directions until it is again thought the foramen has been reached, when again a few drops of eucaine should be injected. If now there is resistance to the push of the piston the syringe should be changed for another filled with 90 per cent. alcohol, and after the lapse of half a minute a few drops of the spirit should now be injected slowly into the same spot, great care having been taken to hold the needle quite steady. The patient will usually feel some burning sensation which may be reflected to the lip and tongue; but this is not always so, nor does the patient always complain of pain along the distribution of the nerve when the needle is first pushed into it, the only pain complained of sometimes being referred deeply at the site of puncture. That this is so I have proved a great many times by the resulting deep anæsthesia after the injection of the third division at the foramen ovale, and also of the infraorbital nerve, when no pain whatever along the distribution of either of these nerves has been produced, either by the puncture of the nerve, or by its subsequent injection with alcohol. This seems difficult to understand, and I should certainly not have believed it possible had I not proved it over and over again. It is a point of some importance, because, when the injection is being made and the nerve is being searched for without chloroform anæsthesia, the operator may be put off making his injection because he has never been able to produce the characteristic pain along the distribution of the nerve when the point of his needle reaches it, and thus, although his needle may be correctly placed within the nerve, he may withdraw it and search elsewhere in the hope of producing this characteristic pain. In this way I am convinced that in several of my earlier cases I missed injecting the nerve when using no general anæsthetic, though the injection was perfectly successful and deep anæsthesia was produced when done under chloroform.

Almost instantly, as soon as a few drops of alcohol have been injected into the nerve, sensation of touch and pinprick becomes blunted on the lip, and slowly, two or three drops at a time, more spirit is injected until the anæsthesia is complete and the pinprick is not felt at all even as pressure. Usually 1 to 1½ c.c. are required to produce this effect. After each injection of a few drops of the spirit the lip and chin should be tested for sensation with a pin, and this method of trial-injection and test-anæsthesia is, I am perfectly convinced, the only satisfactory way of getting good results.

For the injection of the second division in the sphenomaxillary fossa chloroform anæsthesia should never be used, as in this case the needle can rarely be inserted into the foramen rotundum itself, and for this reason the nerve is a much more difficult one to puncture fairly and inject than is the third division at the foramen ovale. Moreover, considerable damage may be done in this region by the careless operator, and severe hæmatoma has been set up from puncture of the internal maxillary artery, or diplopia lasting for months from the injection damaging the ocular nerves at the sphenoidal fissure, though I have never myself had these results. As a rule the searching for this nerve is much less painful than is the corresponding process for the third division at the foramen ovale, and there is consequently less necessity for a general anæsthetic. However, the extraordinary calming effect of the hyoscine and morphine is most valuable, and patients who are suffering severe spasms of pain, or who are very nervous, will keep quite quiet and peaceful during the whole process, and yet will be able to answer at once to the skin tests for anæsthesia. As soon as the injection has been completed they will usually go to sleep quite readily for two or three hours, when, if necessary, they may be allowed to get up and go home. Injection of the supraorbital nerve also is an extremely painful process if the nerve is punctured properly, and in my opinion it should never be done without the help of this method of anæsthesia.

Of ill-effects of hyoscine and morphia I have seen none except in one case—that of a patient over 70 years of age, who, as I afterwards learnt, was known to be very susceptible to hypnotic and analgesic drugs. In her case, in which ⅓ gr. of morphia was used with 1/150 gr. of hyoscine, the respiration became temporarily slowed, with cyanosis, some one and a half hours after the injection, though she soon recovered completely. Vomiting may occur also in some patients, but this tendency may be diminished by the addition of atropine, 1/75 gr., to the preliminary injection.

When using the hyoscine-morphine anæsthetic I prefer that the patient should be in bed, and the services of a nurse are advisable, both for getting ready sterilised towels, &c., and to stay with the patient for a couple of hours afterwards.

Wimpole-street, W.

REMARKS INTRODUCTORY TO THE CLINICAL STUDY OF PULMONARY TUBERCULOSIS.[1]

BY THE LATE C. THEODORE WILLIAMS, M.V.O., M.D. OXON., F.R.C.P. LOND.,

CONSULTING PHYSICIAN TO THE BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

Two elements in the etiology of tuberculosis must engage our interest: the tubercle bacillus and the soil on which it is sown. Unfortunately, the soil is often very fertile; the bacillus takes root and multiplies. But we must bear in mind that it is not everyone into whom the bacillus is introduced who develops consumption. Both in this country and on the continent many instances are known where tubercle bacilli have been found in the nostrils or throats of those closely connected with consumptives, and yet consumption has not developed. The reason is that if the state of health is robust the tubercle bacillus finds no nourishment and perishes. The seed has fallen on stony ground. In combating the scourge of consumption our first great object is to destroy the tubercle bacillus—to prevent the sowing of the seed. Should our measures fail—and often we find ourselves impotent—we must, by hardening the body, try to make the soil barren, or, in technical terms, establish immunity, so that if the seed falls it does not germinate.

Passing to the clinical examination of the consumptive, I propose to consider some of the more important points which present themselves as the investigation is conducted. In the first place, I will take the family history of the patient, and this opens up a very difficult subject—the question of hereditary disposition. Has any relative of the patient had consumption, and how close is his relation to that person? At one time consumption was thought to be a hereditary disease; the child of a consumptive was doomed, and there was no chance of escape. That, of course, is not considered true now, but always bear in mind that there are cases of hereditary consumption. Where, as in the case quoted by Scudamore, a mother far advanced in consumption gives birth to an infant which dies at the age of four months, and in the lungs are found innumerable miliary tubercles, we have evidence extremely strong suggesting the hereditary transmission of consumption.

We now come to the various degrees of family predisposition: paternal, maternal, grandparental, or that of a more remote relationship. It is interesting for you to know that this hospital is the place where much of the investigation into this problem has been carried out. My own researches upon the heredity of consumption dealt with a thousand cases of the upper classes, and had the advantage of escaping some of the errors due to poverty and unhygienic conditions that may vitiate the statistics relating to hospital patients. The late Dr. Reginald Thompson examined the careful records of the Brompton Hospital from its foundation—which were placed at his disposal by his colleagues—and his figures combined with mine leave no doubt about the existence of family predisposition and its influence. This work has been confirmed recently by Professor Karl Pearson's statistics. Undoubtedly many cases that are called hereditary are not so, but are infective. In my own thousand cases there was direct history from father to son, or mother to daughter, in 12 per cent. only. When brothers and sisters, uncles and aunts were included the percentage was 48·4, roughly 50. Dr. Pollock, Dr. Fuller, and others found much the same figures. At this hospital we had the advantage of large numbers. Some of the statistics derived from other sources were based on comparatively few observations. Granting the existence of family predisposition, we must next inquire into the mode of transmission.

In the first place, family predisposition is much more common among women than among men; secondly, the transmission of phthisis is more common through the mother than through the father; thirdly, we must note that, as a rule, fathers seem to transmit to sons and mothers to daughters. This is a very interesting point. Inheritance of predisposition through the father's side must be better than an inheritance through the mother's side, and the explanation seems to be that the paternal inheritance transmits, not only a tendency to the disease, but therewith the resisting power which the male possesses to a greater degree than the female. The mother transmits more frequently to the daughter, and with the predisposition she transmits her weakness of resistance. Consequently it is much better to have a paternal inheritance than a maternal. How does this disadvantage of maternal inheritance show itself? Is the mortality greater? No. Is the duration of the disease less? There does not seem to be much difference; the chief influence seems to be that it hurries the onset of the disease. Females with a family history of the disease tend to be attacked as much as seven years earlier than those not so predisposed. The average age of attack in females without family predisposition is 28; if, however, the mother or the father has suffered from the disease the onset occurs on an average at about 22. In males we do not see so much difference. When there is no family predisposition the average age at onset is 30, whereas if one parent has been affected the age at onset is about 27½. I would draw your attention to two other points in this connexion. Among the cases in which there is a hereditary predisposition more seem to run an acute course, and more suffer from severe hæmoptysis. Double heredity exercises the greatest influence. If both parents have suffered from the disease the risk that the children will also suffer is pronounced. These questions with regard to heredity are of very great importance in connexion with life insurance.

We now come to the question of previous illnesses. Scarlet fever, measles, typhoid fever, and other infectious diseases are not infrequently followed by consumption. Chronic pneumonia, and especially catarrhal pneumonia, not infrequently pass on to definite pulmonary tuberculosis. Perhaps the most important disease of the chest which we find preceding the onset of pulmonary tuberculosis is pleurisy, but the difficulty here is that a large number of the cases of pleurisy with which you will have to deal are caused by the tubercle bacillus. My colleague, Dr. Hector Mackenzie, investigated the etiology of pleurisy, making use of the reports of the patients in St. Thomas's Hospital. I think he found that fully one-third of the cases were definitely tuberculous. When you are asking your patient about his former illnesses you must include questions about consumption itself. Many patients, unless asked, will not tell you that they have had some tuberculous manifestation in the past. You may find, on physical examination of the chest, that there is some area of dulness, or some defect of movement, and then, on questioning the patient, you learn that he knew he had had some weakness of the lungs in the past.

Our next investigation should concern the habits and occupation of the patient. No one will question that close air, lack of food, and overwork, persisting for any length of time, will predispose the lungs of anyone to invasion by the tubercle bacilli, and we trust that legislation will succeed in minimising these evils. But apart from such manifestly injurious conditions as these, we find that certain occupations undoubtedly render the workers liable to consumption. I need but mention the knife-grinders, the stone-workers, and colliers.

I am glad to see here to-day several distinguished medical officers of health, and I hope that the combined efforts of their branch of the profession will secure that in the future these and similar occupations can be carried out under healthy conditions. At one time the question was much discussed whether alcohol had an ill-effect as regards the production of phthisis. Personally I have never had any doubt upon the matter. Anyone who has worked in the out-patient department of this hospital will find this to be the case. You cannot say that alcohol actually affects the lung, but those who take alcohol to excess do not properly nourish themselves. They lose their powers of digestion and assimilation and cannot stomach their meals. The lack of food they make up by an extra dose of drink, and really they die from inanition.

Passing now to the consideration of the symptoms of consumption you will naturally think of night sweats, of loss of flesh, of loss of colour, of shortness of breath, of the aspect of debility, and also, perhaps, most important, of the

[1] These notes formed the basis of a clinical lecture delivered at the Post-graduate Course held at the Brompton Hospital on Nov. 4th, 1912. This was the last public utterance by Dr. Theodore Williams on the subject to which he devoted the work of his life.

cough. Remember that the cough of a consumptive patient is often one that he does not seem to hear himself, while those around him know it well. The cough results in expectoration, and it is your duty to examine the sputum. I would remind you that recent researches seem to show that the tubercle bacillus by itself is probably responsible for very nearly all, if not all, the symptoms of consumption, and that other organisms are of minor importance. The pyrexia of consumption is a symptom upon which much work has been done at this hospital. It still remains a great mystery. When the clinical thermometer was first introduced into this hospital the observations were taken but twice a day, at 10 in the morning and at 10 at night. We now know that the best times for observations are between 8 in the morning and 8 at night. From this you will realise that the earlier observations missed some of the principal phenomena. By taking hourly records for 24 hours, and repeating after a few days' interval, we were able to arrive at certain generalisations with regard to the course of the temperature in this disease. Low temperatures may have quite as bad an import as high. The lowest observation that I made recorded a temperature of 91·7° F. at 6 in the morning. By 8 o'clock that night the patient's temperature had risen to 103°. But such extreme variations as these are exceptional. High fever is unusual; the temperature seldom reaches 104°. The rise of temperature usually begins somewhere between noon and 2 P.M., and the maximum is generally reached between 5 and 8 P.M. With regard to loss of colour and loss of flesh, remember that they are not constant accompaniments of the disease. If the patient be fed well there may be actual gain of weight, although the disease is progressive.

There are two chief pathological conditions giving rise to hæmoptysis. The tuberculous process may invade the wall of a small vessel and destroy it. In my work on consumption you will find a picture showing a caseating tuberculous nodule invading the walls of a blood-vessel and encroaching upon its lumen. The second form of hæmoptysis results from the rupture of an ectasia or aneurysm of a larger branch of the pulmonary artery which has been left exposed and still pervious in a cavity in the lung. There is a famous specimen in the museum of this hospital where there are as many, I believe, as 36 such aneurysms, each in its little cavity. If such an aneurysm bursts it is not possible to do anything in the way of treatment. The outlook is most serious. When I suspect such a condition to be present I warn my patients not to exert themselves to climb hills or to lift heavy weights. Time does not permit me to draw your attention to some of the physical signs which indicate consolidation of the lung tissue, and those which indicate that the disease is spreading, that there is softening and excavation, that cavities are increasing or contracting, but I trust that in the course for which you have entered you will have demonstrated to you examples of all these processes.

THE INDIVIDUAL TREATMENT OF DIABETES.

BY S. A. ARANY, M.D.

THERE is no other disease in the treatment of which so little is individualised as in diabetes, and there is also no doubt that in no other ailment can proper treatment do so much to improve the patient's condition and to prolong his life than in diabetes. Very much wrong can be done in this respect *intra et extra muros*—viz., by specialist and general practitioner, the former sticking very often too rigidly to his own narrow-minded view of the ailment, and the latter neglecting to combine the advances of science with his own experience. For it is of no use to adopt a certain authority's treatment on account of his having obtained good results in his cases, and to stick to it through thick and thin, but it is our most important duty to accommodate our treatment to each individual case.

When treating a diabetic patient our principal aim should be to make him free from sugar, or if we cannot obtain this result we must endeavour to reduce the amount of sugar passed to as great an extent as possible. This we can obtain by one means only—i.e., by a suitable diet. All the other therapeutical agents, such as medicinal and spa treatment, are only useful adjuvants, and cannot by themselves produce any appreciable effect upon the ailment. It is not at all easy to explain what is meant by a suitable diet, and if we offer the following seemingly pleonastic explanation, that a diet is suitable if it suits the individual case, we only want to emphasise the fact that it is a grave mistake to speak of *a* diabetic diet, as the diet suiting diabetic A may be detrimental to diabetic B. Everybody who has had a great number of diabetic patients under his care will admit that the nature of the disease is manifold, and almost every case is different from the other. To illustrate the truth of this statement, I may mention a case in which the ingestion of sweet fruit did not produce sugar, whereas even the smallest amount of potatoes was instrumental in producing glycosuria. In spite of the great variation of the cases I consider myself justified in distinguishing the following three types of diabetes:—

1. To the first category belong those cases in which the restriction and sometimes only the regulation of carbohydrates makes the patient free from sugar.

2. To the second variety belong those cases in which only the total withdrawal of the carbohydrates stops the glycosuria.

3. Finally, the third kind represent those cases in which the total withdrawal of the carbohydrates only reduces the amount of sugar passed by the patient, or has no appreciable effect upon the same.

It does not come within the scope of my present paper to investigate whether these three kinds of cases represent various stages of one and the same disease produced by one and the same noxious influence. Let us consider the dietetic measures which we are to take in the three kinds of cases.

When a diabetic patient comes under our observation we cannot tell at once to which category he belongs, and in order to establish this we must investigate his assimilative power, or, as the German authors say, his tolerance for carbohydrates. This is best done by putting the patient first on a diet as nearly free from carbohydrates as possible. I do not use the colloquial term of carbohydrate-free diet, on account of its being illusory in the true sense of the word, as almost every article of food contains a small amount of carbohydrates. This diet, as it is intended, as a starting diet for all kinds of cases may be laid down in the following formula.

Breakfast.—Tea, with lemon, or a few drops of cream sweetened with saccharin, or black coffee with the yelk of an egg; eggs in any shape; ham or bacon, preferably of a fat quality; almond bread with butter.

Mid-day dinner.—Clear soup with an egg in it, fish or meat of any kind (with exception of liver); if not prepared with flour, one or two of the following vegetables—French beans, cauliflower, spinach, sauerkraut, asparagus, chicory, celery, rhubarb, Brussels sprouts, artichokes, cabbage, sorrel, savoy, white beet, lettuce, tomato, endive, cress, dandelion, purslane, cucumber, mushrooms; plain omelette; cheese and butter, specially prepared biscuits; half pint of claret or hock if required, or mineral water.

At 5 p.m.—Tea, sour or buttermilk.

At 7.30 p.m.—Light supper, consisting of hot or cold meat, one of above vegetables, cheese and butter with almond bread, half a pint of wine, black coffee.

If this diet is strictly observed patients belonging to the first kind of cases will entirely lose their sugar in the course of a few days, and will also have regained some of their assimilative power of carbohydrates. At this point it has to be decided whether the time has yet arrived to add any carbohydrates to the patient's diet. It is always advisable to postpone this till the patient has been free from sugar for a fortnight, and only then to start to establish the patient's tolerance for carbohydrates. For this purpose we may commence to add small quantities of bread to the patient's diet, as it is always found that it is this article of food the patient lacks most. It is advisable to start with as small a quantity of bread as 50 grammes per day, and even this quantity is to be divided between each meal. Should this amount not produce glycosuria we can safely increase the quantity of bread by 50 grammes until the limit of the patient's tolerance is reached, which latter must by no means be over-balanced. If the patient is able to assimilate an appreciable amount of bread, other kinds of carbohydrates may be tested, and for this purpose a certain amount of the bread may be replaced by potatoes, rice, or oatmeal, although it will be found that a

greater amount of carbohydrates is tolerated if only one kind is consumed by the patient, whereas if various kinds of cereals are used the limit of the assimilative power gets much lower. This is a very striking and important feature in diabetes to which allusion will have to be made when dealing with the so-called oatmeal treatment. Patients belonging to the first class of cases may regain their assimilative power to such an extent that they are able to assimilate an unlimited amount of carbohydrates, and only the ingestion of sugar and that of the sweeter kinds of fruit are apt to produce glycosuria with them. In these cases the glycosuria ex amylo has been reduced to glycosuria e saccharo, which is regarded by most physicians as the smallest kind of failure of the assimilative power, although there are cases, as mentioned above, in which the assimilation of the sugar is normal, or almost normal, and that of the starchy food is impaired. This circumstance admits an assumption which I have already discussed elsewhere, that the different kinds of carbohydrates are differently utilised by the system.

It is an almost general custom with medical men to give their patient a list of foods containing articles of diet which they may, and such as they must not, consume. With this list the patient is left at large, and runs away with the idea that he may consume an indiscriminate amount of the foodstuffs on the list. This gives rise in the majority of the cases to polyphagia, which is a pathological symptom as long as the patient's state is not compensated, but which can easily become a habit even if the patient is in perfect compensation, and is very often instrumental in aggravating his condition. It is, therefore, very important to regulate the patient's diet, not only as far as the carbohydrates are concerned, but also with regard to the other foodstuffs, and we must bear in mind that the patient must not consume more than is required to make up the Calories demanded by his system. These amount, according to present-day conception, to from 35 to 40 Calories for each kilo of body weight, which is, however, very often misinterpreted, as a short, stout man, having the weight of a tall and ordinarily fed individual, ought not to take the amount of food which would correspond with the amount of Calories required by each kilo of body weight. It will, therefore, be useful to give an instance as to what a diabetic weighing 60 kilos and measuring 5 ft. 9 in., and whose assimilative power tolerates 200 grammes of carbohydrates, should take during 24 hours:—

Amount of food.			Calories.
4 eggs			300
25 grammes of	bacon		220
250	,,	beef	250
200	,,	veal or fowl	150
200	,,	fish	120
25	,,	butter	200
50	,,	cheese	240
200	,,	spinach	70
200	,,	lettuce	40
200	,,	milk, corresponding to 50 grammes of white bread	140
60	,,	potatoes = 20 grammes of white bread	50
120	,,	apples = 20 ,, ,,	60
40	,,	porridge = 20 ,, ,,	210
100	,,	white bread	270
			2320

The *second category* of cases represents such patients as are not able to assimilate even the smallest amount of carbohydrates, and who after the ingestion of such pass a smaller or larger amount of sugar. The procedure to be taken in these cases will depend upon the amount of sugar the patient is passing, and if it is found that it does not exceed 1 per cent. after the ingestion of an amount of carbohydrates satisfying the patient's need, I think we are justified in giving him this amount of carbohydrates for a certain length of time, after which the carbohydrates can be withdrawn for a fortnight to produce a sugar-free state. It is of the utmost importance to make the patient free from sugar from time to time, as this condition increases his tolerance for carbohydrates, whereas if the glycosuria is left to its fate it rapidly increases in intensity. On the other hand, on the constant withdrawal of carbohydrates ensues the most feared symptom of acidosis, which is as a rule accompanied by loss of bodily weight. I think that most physicians will agree with me that diabetics suffer less by passing a certain amount of glucose than by passing even traces of acetone bodies. For this reason I add to this kind of patient's diet such an amount of carbohydrates as is able to stop the acidosis, and usually find that, although this procedure is followed by an increase of sugar, it is also instrumental in stopping the acidosis and in increasing the patient's bodily weight.

In the *third category* of cases we find that even the total withdrawal of carbohydrates is not followed by a sugar-free state, which shows that the disease has developed into a state in which proteids and fat are the source of the glycosuria. In some of these cases it will be found that the glycosuria is the result of over-eating, and it will soon be reduced, and sometimes even checked, by giving the patient the proper amount of food. In other cases the reduction of the food ingested will not produce any appreciable change; moreover, it will increase the acidosis, which is an almost constant accompaniment of these cases. Then some carbohydrates must be added to the diet by which not only will the acidosis be decreased, but in the majority of the cases no increase of the glycosuria will be noticeable—i.e., the patient will pass the same amount of sugar as he passed before the addition of the carbohydrates to his diet.

With the increasing intensity of the disease the formation of sugar, proteids and fat as well as the acidosis increase to such an extent as to imperil the patient's life, at which stage it becomes necessary to put the patient for from two to eight days on a diet nearly free from animal food, as already Bouchardat has found that proteids contained in vegetables are better tolerated by most diabetics than those contained in animal food. The formula I employ runs thus:—

Breakfast.—Tea with cream, or black coffee, poached egg and 25 grammes of bacon; almond bread and 20 grammes of butter.

Dinner.—Beef-tea with an egg in it, spinach with (25 grammes) fat and two eggs in it; asparagus with (25 grammes) butter, coffee with cream.

At 5 p.m.—Tea with cream.

Supper.—Cauliflower with 25 grammes butter, salad with 20 grammes oil, two hard-boiled eggs or omelette.

This diet, owing to its richness of fat, amounts to about 2000 Calories, if from 600 to 700 grammes of vegetables are consumed per day, and will not prove insupportable for a few days. By means of this diet I have very often reduced the sugar to *nil* in a day or two, and then replaced part of the vegetables and fat stuffs by small quantities of meat and still smaller quantities of carbohydrates, and found that the patient's tolerance for these latter, too, has increased under the influence of the vegetable *régime*. In other cases it will be necessary to continue this *régime* for five or six days; but whatever the result be it will not be advisable to go on with it for more than eight days (even if we find that the patient's tolerance for animal food has increased up to the normal standard) should the limit of Calories required by his system be exceeded. As mentioned before, the vegetable *régime* improves not only the assimilation of animal proteids but also increases the patient's tolerance for carbohydrates, and it will be seen that a patient who before the vegetarian diet was passing sugar on an entirely carbohydrate-free diet, will become able, after a few days' vegetarian diet, to assimilate not only a normal amount of animal food but also a small amount of carbohydrates.

For how many days the vegetarian *régime* is to be continued entirely depends upon the nature of the case, and so does the effect produced by the *régime*. In some cases it will have improved the patient's tolerance for months, in others for a few weeks only, and it will be the medical adviser's duty to ascertain how often the patient is to be put on a few days' vegetarian *régime*. Noorden[1] and some other German authors ordered the vegetarian days to be followed by the so-called oatmeal treatment.

Oatmeal treatment.—This consists in giving the patient for a few days an oatmeal dish very much like porridge, but prepared with plenty of butter, the daily amount of oatmeal averaging between 150 and 250 grammes. This is fairly well tolerated by a number of patients on account of their improved assimilative power, owing to the preceding vegetarian *régime*, but no special quality or healing power must be ascribed to the oatmeal, as patients who are able to tolerate this latter can also assimilate a corresponding

[1] Noorden: Handbuch der Stoffwechselkrankheiten.

amount of another cereal, especially if only one kind be given.

It will be seen from all this how much harm can be done by prescribing an unsuitable diet to a diabetic patient, and how much discrimination must be used in the quality and quantity of the food we recommend to the patient. Even in one and the same case the diet has to be changed as often as alteration takes place in the patient's condition, as the tolerance for carbohydrates as well as for proteids cannot be established for an unlimited period. Even the season of the year is not without an influence upon the patient's condition, and I [2] was the first to call attention to the fact that the glycosuria as well as the elimination of acetone-bodies increase during the colder part of the year.

Concluding the dietary question, let us discuss some of the most important articles of food recommended to diabetic patients.

Liquids.—Bouillon possesses no nutritive value at all, but it satisfies the diabetic's so-called "stomach-hunger" and is a very good carrier of eggs. The nutritive value of tea and coffee does not exceed very much that of bouillon, but if taken with fat cream either is a welcome addition to the diabetic's diet. The nutritive value of alcohol is denied by most authors, but even if the case be such I gladly avail myself of it in patients who are in the habit of taking a moderate amount of wine, the more so as the diabetic's diet is, owing to its richness in fat, hard to digest, and that the moderate use of wine is helpful to the digestion cannot be denied even by the greatest foe of alcohol.

Meat, and especially its fatter kinds, such as beef, pork, and goose, are the diabetic's principal source of proteids; veal, venison, and fish make the diet more varied, but their nutritive value does not rank so high as that of the former.

Fats play a most important part in the nutrition of the diabetic, as they are most readily assimilated and contain a large amount of Calories in a concentrated state. They are very well tolerated in the shape of bacon and butter, and as an addition to other foodstuffs.

Eggs, owing to their richness in proteids, rank as highly as meat, their greatest advantage being that they are gladly taken by the patient, and can be prepared in various ways. They are also excellent carriers of fat.

Vegetables should be the diabetic's principal article of food, (1) on account of their proteids being better tolerated by the patient than those of animal food; (2) because they are very good carriers of fat; and (3) owing to their filling the patient's stomach up, whereby the diabetic's stomach-hunger gets more satisfaction than if an amount of meat, corresponding with the Calories of the vegetables, were ingested by him.

Fruit.—Only the sour kinds of fruit can come into consideration, and even these must not be recommended to patients of the third category.

Milk and its products.—Sweet milk contains from 4 to 5 per cent. of milk-sugar, and is fairly well tolerated by patients belonging to the first and second category if given in moderation. Cream contains less sugar and more fat than milk, and is therefore preferable in patients of the third category, if not used too generously. Sour milk contains, of course, less sugar than fresh milk and may be used more freely, and is a very useful addition to the grave diabetic's diet. Butter should be consumed in large quantities, and the same refers to cheese, especially to its fatter kinds.

The question of *bread* is the greatest importance. The patient usually desires more of it than the doctor can possibly grant him. This situation can be helped if the ordinary bread is replaced by a larger amount of aleuronat bread, containing only half the amount of flour of ordinary bread, the other half being replaced by aleuron, a vegetable proteid. It must be emphasised that some preparations sold under this heading are unreliable.

Medicinal and spa treatment.—Although the number of drugs recommended year by year is legion, our therapeutical knowledge stands much where it stood a hundred years ago, and we are compelled to avail ourselves principally of opium in cases in which the dietary measures do not prove sufficient. Especially cases belonging to the third category require this drug from time to time, and it will be found that only large doses produce a somewhat mitigating effect upon the polyuria and sometimes also upon the glycosuria, but no effect whatever upon the acidosis. As a preventive of the last-named, the alkali treatment comes into consideration, and it is advisable to use a combination of different alkaline salts in large doses. This accounts for the efficaciousness of the alkaline mineral waters, containing different kind of alkali in readily assimilable doses. The efficacy of these waters is increased by their hot temperature, which accelerates their reaching and neutralising the blood. It is also a well-known fact that patients who cannot get rid of their glucose by dietary measures, sooner lose their sugar if the dietary treatment is from time to time combined with a course of alkaline waters. Besides, it must not be forgotten that the diabetic's diet is rather hard to digest, and very frequently digestive disorders of various kinds ensue, which may be effectively treated by alkaline waters. It is, therefore, advisable to prescribe in such cases once or twice a year a three or four weeks' course of mineral water treatment, for which purpose from two to three tumblerfuls of the warmed Karlsbad Mühlbrunn at intervals of 15 minutes will be found the most efficacious. It cannot be denied that these waters are less efficacious in a bottled condition than if taken on the spot, but it is equally true that they do not lose the whole of their value by the transport, and it is a good deal better to take them at home than not to take them at all.

With regard to health resort treatment, it goes without saying that the spas having alkaline springs are to be considered in the first place, but before sending a patient anywhere we must make sure that the dietary conditions of the spa we select are suitable for a diabetic patient. In this respect the Austrian spas are quite reliable. Not quite so good are these conditions in Germany; and in the French health resort the patient is almost left at large. Mountain climbing and mountain air are very useful adjuvants of the spa treatment, and are not infrequently instrumental in improving the patient's assimilation.

Carlsbad.

[2] S. A. Arany: Some Points in Diabetes, THE LANCET, Feb. 23rd, 1907, p. 521.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF FOREIGN BODY IN THE ŒSOPHAGUS.

BY GEORGE N. BIGGS, M.B., B.S. DURH.,

CONSULTING AURAL SURGEON, EVELINA HOSPITAL FOR SICK CHILDREN; SURGEON IN CHARGE, EAR AND THROAT DEPARTMENT, ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN; ASSISTANT SURGEON, EAR AND THROAT DEPARTMENT, DREADNOUGHT HOSPITAL, GREENWICH.

A BOY presented himself at the Seamen's Hospital, Greenwich, with the history that one day previous to his attending he had swallowed a piece of rabbit bone, and that attempts had been made to remove it with a probang. As a result of this treatment he had suffered very acute pain, and when seen was quite unable to swallow even water. No swelling could be detected in the neck on palpation, although the patient complained that the object seemed to be impacted at a point about an inch below the cricoid cartilage. He was given a general anæsthetic, and I examined him by direct œsophagoscopy.

At a point about an inch below the cricoid cartilage a fairly large swelling, which was covered with acutely inflamed mucous membrane, was seen upon the posterior wall of the œsophagus. On pressure about 1 drachm of pus was expelled from this swelling, when a small white object was seen projecting through the opening from which the pus had escaped. This was seized with forceps, and on being removed proved to be a piece of rabbit bone one inch long and pointed at both ends. During the extraction the abscess cavity was opened quite freely, so that there was no need to incise it in order to provide free drainage. No food was given by the mouth for four or five days, the patient being fed rectally. Bismuth emulsion in 1 drachm doses was given three times a day (bismuth carb., 30 gr.; lanoline, 1 drachm; ol. petroli, ad 1 oz.). For six days the patient progressed quite satisfactorily, but on the seventh his temperature shot up to 105° F., and was accompanied by a certain amount of dyspnœa and dysphagia.

On examination the resident medical officer, Mr. A. Gibson, found that there was a slight swelling present

FIG. 1.

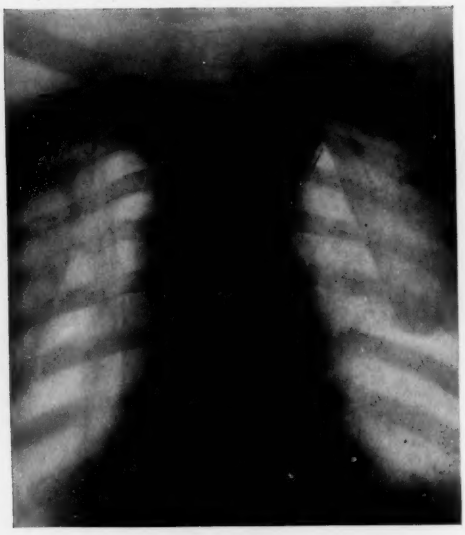


FIG. 2.

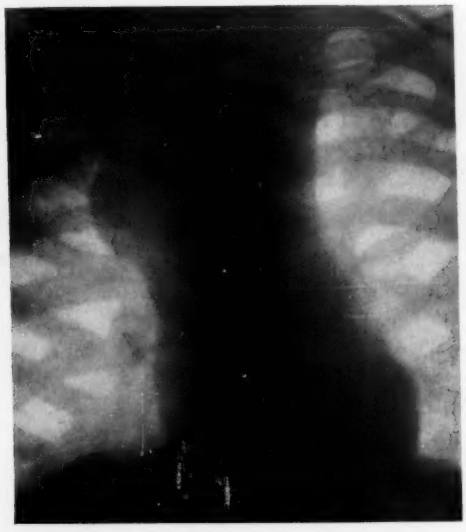


FIG. 3.

FIG. 4

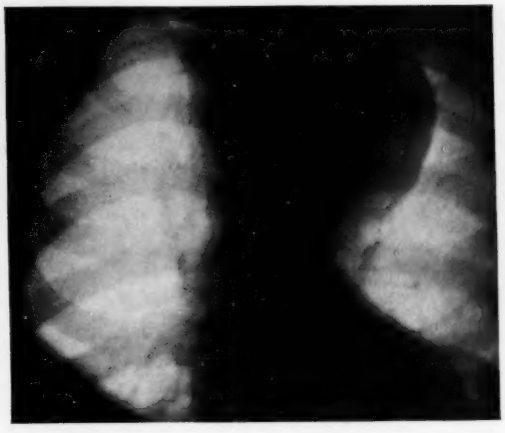


FIG. 5.

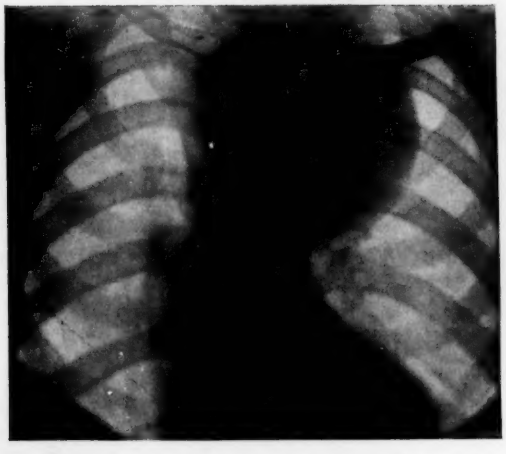


FIG. 6.

To illustrate Dr. F. de Havilland Hall's Lumleian Lectures.

FIG. 7.

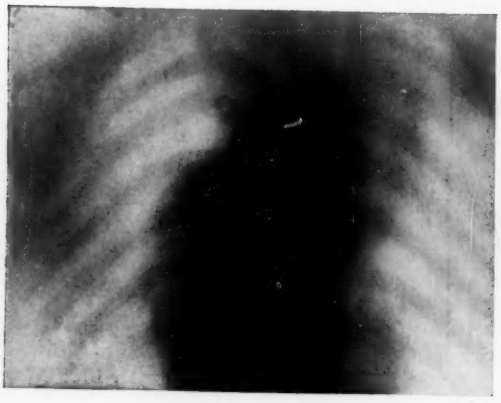


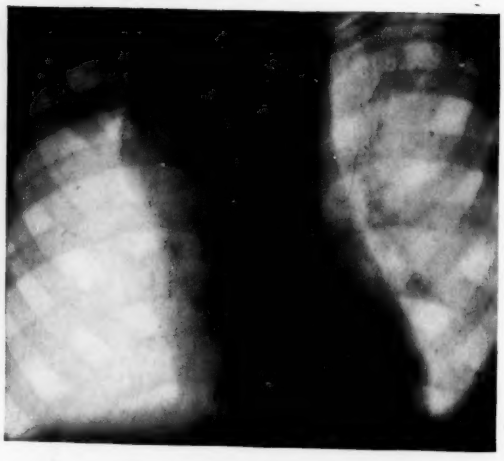
FIG. 8.

FIG. 9.

FIG. 10.

FIG. 11.

FIG. 12.



To illustrate Dr. F. de Havilland Hall's Lumleian Lectures.

externally about the level of the cricoid cartilage; whilst this was being palpated the boy complained of a feeling of something giving way, and coughed up about 1 oz. of very foul pus mixed with blood. This was followed by the immediate relief of both the dysphagia and dyspnœa, whilst the temperature rapidly fell to normal. He was again placed on rectal feeding, and two days later I again examined him by direct œsophagoscopy. I found a small opening situated just above the cricoid cartilage, which communicated with the original abscess cavity in the œsophagus. I presume that the opening in the former situation closed too rapidly and that the pus forced its way upwards, the abscess rupturing into the deep pharynx. The boy made an uninterrupted recovery, and was discharged from the hospital in 28 days cured. There was no tendency to contraction at the level of the primary wound when he was discharged.

This case well illustrates the danger of using instruments such as the probang, which in these days of direct œsophagoscopy should be obsolete. If this case had been examined at once by direct œsophagoscopy the object could have been removed and there would probably have been no further trouble, but the attempts to remove it had simply had the effect of driving the body through the wall of the œsophagus and more firmly impacting it. Fortunately for the patient the object was impacted in the cervical and not in the thoracic portion of the œsophagus, otherwise the boy would almost certainly have lost his life.

Wimpole-street, W.

NOTE ON A CASE OF UNILATERAL OPTIC ATROPHY AFTER EXPOSURE TO AN ARC LIGHT.

BY ADOLPH BRONNER, M.D. HEIDELB., M.R.C.S. ENG.,
SENIOR SURGEON TO THE ROYAL EYE AND EAR HOSPITAL, BRADFORD.

THE patient, who consulted me in November, 1911, had six days previously (on Nov. 23rd) used an electric magic-lantern. The arc light did not act very well, and she was carefully watching and adjusting it for about an hour. The light was covered by a piece of neutral tinted glass, which was frequently removed. She felt no discomfort whatever, but on going downstairs afterwards she noticed that she had difficulty in finding the steps and had to walk slowly. She also felt giddy and unsteady when walking. On the 25th she accidentally found that on closing the right eye she could not see with the left eye; everything looked black. She was quite certain that the vision of the left eye was perfect some days before.

When I saw the patient on Nov. 29th she could only count fingers at the distance of a foot with the left eye. The vision of the right eye was normal. The left pupil was slightly larger than the right, and acted rather more slowly to light. The left retina was congested in the region of the macula; the optic nerve was apparently normal. I ordered Hallauer tinted glasses, and prescribed iodide of potassium and nux vomica. I saw her again on Feb. 12th, 1912. The vision was 6/18, and had been gradually improving. There was ill-defined slight central scotoma, and the field of vision was contracted outwards. The central vision for colours was slightly affected; she recognised large squares of colour quite well, but small squares only indistinctly. The left disc was paler than the right. The region of the macula was apparently normal. On March 28th the vision was 6/12. The field of vision was contracted outwards 60°, and the disc was pale. On April 29th the vision was 6/9–12 and the disc white. On Nov. 2nd the vision was 6/12. The field was contracted outwards and inwards, and the disc was white. There was slight relative central scotoma; a small white square was recognised, but a grey square was not. The patient had difficulty in reading, as the letters in the middle of the field were indistinct; she could only see a few words at a time. The field was distinctly contracted, out 60°, in 40°. There were a few small dark spots in the region of the macula. The disc was quite white and the retinal vessels were narrower than those of the right eye. On Jan. 12th, 1913, the vision of the left eye was 6/12. There was a central scotoma for small squares of red and green, but not for white. The patient still had some difficulty in reading. When she looked at faces parts of the face seemed clearer than others. The field was contracted, out 60°, up 40°, in 40°, and down 30°. The disc was white. There is no history of any disease, no affection of the nose or teeth, or any other part of the body; no constipation or leucorrhœa.

This case is interesting from many points of view. There has been no pain or photophobia. The right eye is not affected. This is probably due to the fact that the patient chiefly used her left eye and kept the right eye partly closed when watching the arc light. There was a neutral tinted glass in front of the arc light during part of the time. The disc has got distinctly paler during the last few months, and the field of vision is contracting. There has never been a well-marked central scotoma, although the central vision, especially for colours, has always been more or less affected.

Bradford.

NOTE ON A PAROVARIAN CYST IN A CHILD PRESENTING IN THE EPIGASTRIUM.

BY FREDERICK DEANE, F.R.C.S. EDIN.,
VISITING SURGEON, BARBADOS GENERAL HOSPITAL.

THE patient, a girl aged 8 years, was admitted into the Barbados General Hospital on Nov. 21st, 1912, suffering from a tumour in the upper abdomen. About six months previously her parents had noticed a small tumour in the region of the umbilicus, and after taking her to several physicians, who diagnosed worms, her mother brought her to the hospital, as the tumour was rapidly increasing in size. A consultation was held by the visiting staff and an operation was advised.

On Nov. 22nd I opened the abdomen in the middle line above the umbilicus and found a thin-walled cyst distended almost to bursting strain. The cyst was tapped and the sac delivered. The pedicle was found to be connected with the uterine appendages on the left side in the vicinity of the parovarium. The little patient was allowed to sit up in bed next day. The Michel clips were removed on the 26th, and the child has made an uninterrupted recovery.

Barbados.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

SURGICAL SECTION.

Ligature of the Renal Artery and Vein as a Substitute for Nephrectomy.—Unusual Cases of Renal Tumour.

A MEETING of this section was held on March 11th, Mr. G. H. MAKINS, the President, being in the chair.

Mr. T. H. KELLOCK read a paper on Ligature of the Renal Artery and Vein as a Substitute for Nephrectomy. He gave the history of a patient on whom he had performed this operation. The man, a native of India, had been operated upon several times before he came to England; a stone had been removed from the bladder by perineal lithotomy, and several operations had been performed in the region of the left kidney. When he arrived in England he was in a thin, emaciated condition; there were many scars in the left lumbar region, and a sinus discharging pus. The urine was small in amount, contained pus, and was passed in frequent small quantities. The sinus in the loin led down to the region of the left kidney, and was surrounded by dense fibrous tissue. A skiagram showed the presence of a stone apparently in the pelvis of the left kidney. An examination under an anæsthetic was made, and the stone felt with a probe through the sinus. An attempt to extract it with forceps was followed by profuse hæmorrhage, which was only arrested by a rapid enlargement of the sinus forwards and backwards, extraction of the stone, and tight plugging of the cavity. Eighteen days later the abdomen was opened through the upper part of the left rectus muscle, and the left renal artery and vein ligatured. Some difficulty was experienced in doing this, as the tissues in their neighbourhood were matted together by inflammatory products. A few days later the urine was found to be free from pus, and had increased in quantity. The sinus in the loin did not heal until it was again explored, when the kidney was found to be quite anæmic and friable. The greater part of

it came away quite easily in fragments. After this last operation the sinus healed firmly, and the patient improved very markedly in health and returned to India. Mr. Kellock said that, performed on the cadaver when the parts concerned were not diseased, ligature of the left renal artery and vein was not a very difficult matter. By making the incision through the abdominal wall a little to the left of the middle line, turning the body on to the right side, and opening the posterior peritoneum at a point about 3 inches above the umbilicus, the artery and vein could be secured by the side of the vertebral column. The operation on the right side was more difficult owing to the presence of the duodenum and head of the pancreas. In the case reported the operation fulfilled its purpose excellently. It was obvious that the right course was to remove, if possible, the exclusively diseased kidney, but, considering the previous very serious hæmorrhage and the adherent condition, nephrectomy must have been both a difficult and dangerous operation, and the ligature of the vessels served the same purpose by starving the kidney. The operation might rarely be required, but in suitable cases would seem to be a very useful one, having the additional advantage that it could be done as a clean operation, although the kidney itself might be in a septic condition.

Mr. J. SWIFT JOLY read a paper on Three Unusual Cases of Renal Tumour, with a discussion of the operative treatment of the condition. Case 1 was that of a patient who had several attacks of hæmaturia during the last three months. When he passed clots in the urine these attacks were painful; if the blood was fluid they were painless. On examination his left kidney was found to be slightly tender, and to be displaced downwards. At its upper pole a doubtful tumour could be felt. Cystoscopy showed a small mass of new growth sticking out of the left ureteric orifice. It was passed a few days later. Operation: nephrectomy. The kidney was removed enclosed in its fatty capsule. The patient recovered, and no evidence of a recurrence could be made out when he was last seen—two years and four months after the operation. The tumour was a hypernephroma which sprang from the upper pole of the kidney. A downgrowth had invaded the pelvis, and was moulded to its exact shape, but was not adherent to it. Case 2 was that of a man who had two attacks of hæmaturia shortly before he was seen. The right kidney was enlarged to about twice its normal size. It was hard, irregular, and painless, and moved freely with respiration. The enlargement was most marked at its lower pole. Hæmaturia was induced by palpation of the tumour. The blood was seen by means of the cystoscope to come from the right ureteric orifice. The patient was advised to go into hospital for an operation, but refused to do so. Three months later he was admitted with clot retention. This was relieved, but the hæmorrhage from the right kidney continued, and was so profuse that operation became urgently necessary. Operation: nephrectomy. The kidney was removed within its fatty capsule. Death followed from shock eight hours later. Examination of the specimen revealed a hypernephroma growing from the lower pole of the kidney. Numerous secondary growths were found scattered through the organ; several of these projected into the pelvis or into the calyces. One nodule of growth was found in the perirenal fat. Case 3 was that of a man who had had about five attacks of hæmaturia within the last four years. Once or twice he passed clots in the urine. On these occasions he felt a dull ache in the left renal region. A large hard, smooth mass was felt in the left lumbar region, and extended up under the ribs. It was painless on palpation, dull on percussion, and moved freely with respiration. No urine could be collected from the left kidney. Operation: a vertical incision was made just outside the left linea semilunaris, and the abdomen was opened. The tumour was found to be renal, and no extensions of the growth could be made out. The peritoneum was then sutured, and a long incision from the centre of the first one was made extending into the loin. The kidney, its fatty envelope, the suprarenal capsule, and the left juxta-aortic glands were removed in one mass. Convalescence was uninterrupted. The patient had no signs of a recurrence when last seen—a year and nine months after the operation. During this interval he had put on over 4 st. in weight. The tumour, which weighed 3¾ lb., was a primary carcinoma of the kidney. It originated in the central portion of the organ, and had expanded the true kidney tissue till the latter formed merely a thin capsule round the growth. In the second part of the paper the operative treatment of renal tumours was discussed. Mr. Joly pointed out that neither a partial nephrectomy nor a simple nephrectomy (nephrectomy as performed for non-malignant disease) was admissible in these cases. These operations were not extensive enough to hold out any hope of more than temporary benefit. Nephrectomy followed by removal of the fatty capsule of the kidney was advocated by many authors, but it was much better surgery to remove the kidney as it lay enclosed in the perirenal fat. Mr. Joly then turned to Grégoire's operation, which had for its object the removal of the kidney, the fatty envelope, the suprarenal capsule, the lymphatics, and the juxta-aortic lymphatic glands. This he considered the operation of choice in cases of renal tumour. Having discussed the anatomy of the operation, he pointed out the necessity of exploring the parts before commencing to remove the tumour. The T-shaped incision he used in the third case suited this purpose he thought better than the one recommended by Grégoire. The latter had also the disadvantage of weakening the abdominal wall. Until some radical operation such as Grégoire's was widely used, Mr. Joly thought that but little improvement could be made in the statistics of the results obtained in cases of renal tumour.

SECTION OF GYNÆCOLOGY AND OBSTETRICS.

Discussion on Ventrifixation of the Uterus.

A MEETING of this section was held on March 6th, Dr. AMAND J. M. ROUTH, the President, being in the chair.

A discussion on the subject of Ventrifixation of the Uterus was introduced by the reading of three papers. Dr. W. S. A. GRIFFITH read the first paper, on Indications for the Operation. He said: The operation of suspension of the uterus is adapted for the relief of certain cases of displacement of the uterus where there is a failure on the part of the supports of the uterus to maintain that position which is necessary for the comfort of the patient, and to enable her to perform ordinary laborious duties. The class of cases needing the operation may be divided into two: (1) those in which the supports of the uterus are sufficient to maintain it at, or nearly at, its proper level in the pelvis, but in which retroversion or retroflexion of the body of the uterus and adjacent broad ligaments, leading to prolapse of the ovaries, is the cause of the serious discomfort; and (2) the cases in which prolapse of the uterus, broad ligaments, and ovaries is considerable, and is associated with varying degrees and forms of vaginal, vesical, and rectal protrusion. In both of these groups many cases are sufficiently relieved by pessaries, though some women, for various reasons, prefer the relief to be obtained by operation to the prolonged use of pessaries and the medical attendance and frequent douchings which are the necessary alternative. The following appear to be clear indications for the operation:—*Class 1.*—The uterus is retroverted and more or less fixed by adhesions. The uterus is pressed down in the position of retroversion by a tumour, commonly ovarian. The retroversion is complicated by prolapse and enlargement of the ovaries, a constant source of pain, unrelieved, and in some cases increased, by the pressure of the pessary. The retroversion or retroflexion is not kept in position by a pessary owing to the small size of the vaginal cervix or the dilated condition of the vagina. *Class 2.*—In this class the operation is often needed, the prolapse of the uterus being accompanied by prolapse of the vagina, and in most cases great enlargement of the vaginal orifice. The large rings so frequently used do much harm by the greater dilatation of the vagina which they cause. The support which the operation gives to the uterus in this class is only a part of that needed for their complete relief, and I am accustomed to perform it at the end of the vaginal operation—namely, after curetting, partial excision, or repair of the cervix, if these are needed, and after the repair of the posterior vaginal wall and perineum, with anterior colporrhaphy if the cystocele is considerable. An examination of the patients 12 months or longer after operation is essential for a correct opinion as to the result. Some surgeons are in the habit of performing this operation in cases of retroversion in women of poor general health (who have no local symptoms), with the idea that retroversion is a cause of the

general feeble state of health. Most of us are probably of the opinion, with which I agree, that the condition of the uterus in these cases is merely a symptom and in no sense a cause of the ill-health, and that it is undesirable to subject such patients to this operation.

Mr. H. BRIGGS, reading the second paper, on the Technique of Ventral Fixation and Allied Operations, said: This portion of the discussion will be opened by the advocacy of a purely peritoneal direct ventral fixation over a limited and appropriately chosen area—i.e., over a site immediately adjacent to the pelvic floor. As a low-level fixation by silk suture of the lower portion of the body of the uterus to the parietal peritoneum adjacent to the summit of the bladder, its peritoneal bands are harmlessly and effectively situate above the usual cervical site of the retroflexion. This operation, as an early emanation from the operative treatment of a series of 600 cases, will be described and defended from personal experience. Its simplicity and efficacy, as a method of ventral fixation, further ensure complete freedom to the greater part of the body of the uterus during the child-bearing period of life when the operation is at its best. Other methods of direct ventral fixation with fascial and muscular attachments and the round ligament operations of Gilliam and others will be included in a general reference to the stress and strain of an inadequate pelvic floor. The strength of the pelvic floor and its varying prospects will be considered in relation to the treatment of prolapse of the uterus; early complete restoration by operation will be advised. A further statement of the commoner complications and of the possibly defective attempts at accurate inclusive conservative treatment, in cases of backward displacement with symptoms justifying an abdominal section, leaves a relatively small number of cases in which ventrofixation alone can be adequate treatment.

Dr. ARTHUR E. GILES read the third paper, on the After-results of Operations for Uterine Displacements. He said: Vaginal fixation operations are not considered abdominal operations, for the fixation or suspension of the uterus are so varied that it is necessary, when discussing after-results, to specify the particular procedure adopted. The present remarks have reference neither to "ventrofixation" nor "ventrosuspension" of the uterus, but to the specific operation to which the speaker restricts the term "hysteropexy": the features of this operation are described. In my previous recorded after-results of abdominal operations down to July, 1909, there were 309 cases of hysteropexy, 248 of which were traced. From August, 1909, to July, 1912, 199 additional cases were done, making a total of 508 hysteropexy operations. An endeavour has been made to complete the after-histories of the additional cases; about 120 of them have been traced. An analysis of these cases confirms the conclusions previously arrived at—namely, that the general health is improved and symptoms relieved in over 90 per cent.; that the position of the uterus remains permanently good in over 95 per cent.; that hysteropexy when followed by pregnancy causes no subsequent complications of labour; and that pregnancy following hysteropexy does not disturb the position of the uterus. Of the 199 additional cases, 92 were operated upon for retroversion, 40 for prolapse, and 67 for procidentia. To get the best results in the last two groups it is usually necessary to combine plastic operations on the vagina and perineum with the hysteropexy. It is desirable that operators should record the results of a large number of cases of other operations for uterine displacements.

Following the reading of the papers there was a general discussion, in which a large number of speakers took part.

Dr. HERBERT R. SPENCER was surprised at the frequency with which other gynæcologists performed this operation, as he himself had only done it 27 times in 1000 abdominal sections. The reason why he had performed so few of these operations was that it was an unscientific operation by no means free from danger; Giles had had 4 deaths in 220 cases, Zweifel 5 deaths in 336 cases, four of the latter being deaths from septic peritonitis. Another reason which influenced him was that he had seen so many cases in which the operation had failed to relieve the symptoms. He noticed in Dr. Giles's valuable investigation into the after-history of these cases that 42·2 per cent. of those inquired into had pain after the operation, although in 32·5 per cent. it was stated that the pain was less than before. In his opinion both ventrosuspension and ventrifixation, as ordinarily performed, were unscientific and dangerous operations, giving rise to peritoneal bands which on many occasions had caused strangulation of intestine. For procidentia in women beyond the menopause he considered ventrifixation a useful adjunct to colporrhaphy and perineorrhaphy, but care should be taken completely to close the peritoneum over the bladder.

Dr. ARCHIBALD DONALD said he would confine his remarks to cases of mobile retroversion. Dr. Griffith had said that the operation should not be performed for retroversion when there were no local symptoms, but he did not state what he considered the symptoms of retroversion to be. The speaker believed that the symptoms usually associated with retroversion were menorrhagia, metrorrhagia, and dysmenorrhœa, and many operations for retroversion were done in the hope of curing these symptoms, which were attributed to congestion induced by the displacement. There was, however, no reliable evidence that retroversion caused congestion, or that congestion could lead to changes in the endometrium causing menorrhagia, metrorrhagia, and leucorrhœa. The practice of stitching up the uterus for the cure of these symptoms was therefore unscientific. The speaker believed that in these cases there was an abnormal condition of the endometrium (endometritis), which was often the cause, but never the result, of the retroversion, and his own practice was to curette these cases and disregard the position of the uterus.

Dr. H. MACNAUGHTON-JONES said he had never performed hysteropexy as advocated by Dr. Giles. Since 1905 the operation he had performed was as follows: a strong catgut suture, to last 18 days, was passed on each side so as to include a loop of the round ligament, the parietal peritoneum and the peritoneal fascia. The ligaments were then crossed so as to bring the ligature out at the opposite side; the ligatures were tied after closing the peritoneum. He did not think that fixation of the uterus should be practised during the child-bearing period of life.

Miss M. H. F. IVENS said that her operative experience was confined to 150 cases of Gilliam's operation. In the last 50 cases she had adopted Mayo's modification, the round ligament being drawn through the peritoneum at the internal inguinal ring, so that no abnormal slit was left as in Gilliam's procedure. There had been one fatality in a case complicated by chronic appendicitis. About 93 per cent. of the cases had been followed up, and the results were very satisfactory.

Dr. M. HANDFIELD-JONES did not consider that cases in which the ovaries and tubes were removed for disease, the uterus then stitched forwards, should be regarded as cases of ventrifixation. He had found the operation of most use in women of middle age who found relief from wearing a pessary, but after a reasonable time were unable to do without this support. He had seen much distress caused by the uterus being fixed at too high a level, and in these cases he had given the patients immediate relief by setting the organ free again. The patient should be prepared for the operation by 10 days' treatment in bed with hot douches and glycerine tampons.

Dr. ARNOLD W. W. LEA said he had done the operation 75 times in abdominal sections; the greater number of the cases were for backward displacement. He was opposed to treating those cases with pessaries, as the pessaries rarely had any curative effect, except in cases of simple retroflexion following confinement.

Dr. HUBERT S. ROBERTS believed that the greater number of cases of backward displacement did not require operative treatment at all. He considered that retroversion was often the first stage of prolapse, and if an operation was required at all it should be directed to repairing the pelvic floor. He had done the operation in a few cases, selecting Gilliam's operation in young women and ventrifixation in women who had passed the child-bearing period.

Mr. H. BECKWITH WHITEHOUSE expressed the opinion that in some centres there was a growing tendency to fix the uterus for inadequate causes. In his experience fixation often failed to relieve pain in the case of patients suffering from simple displacements, and care should be exercised in the choice of cases. He had seen a case of intestinal obstruction which was caused by a band of adhesions resulting from fixation of the uterus to the abdominal wall, and he did not regard this method with favour. His own preference was for the "sling" operation of Clarence

Webster, in which a loop of the round ligament was drawn through the broad ligament on each side and stitched to the posterior uterine wall. He described in detail the technique he had himself been led to adopt.

Dr. J. S. FAIRBAIRN wished to speak only as to the indications for the operations. With regard to cases of simple backward displacement, he agreed with a previous speaker that the operation should only be done when absolutely necessary. The difficulty was to decide what made it necessary, and he considered that those who did these operations by the hundred were still living in the mid-Victorian period of gynæcology, when displacements were regarded as of supreme importance.

Dr. FARQUHAR MURRAY reported some clinical observations made by Mr. Bryden Glendining and himself upon the capacity of the bladder before and after ventrifixation. In the result half the cases showed an increased capacity, half a decreased capacity after the operation.

Dr. WALTER W. H. TATE said that he had performed the operation of ventrifixation in 44 cases between the years 1900 and 1910 at St. Thomas's Hospital. In 25 of these the after-history had been followed up, showing that seven had borne one or more children since the operation without any complication occurring during either pregnancy or labour. This good result he attributed to the fact that the fixing sutures were passed through the lower part of the uterus, leaving the fundus free. In contradistinction to a previous speaker, he considered that the operation was specially called for in women in the prime of life who had to earn their living. But he only advised the operation in cases when pessaries and other methods of treatment had failed to relieve. He had also found the operation of use in some distressing cases of incontinence of urine from weakness of the bladder sphincter. By fixing the uterus the neck of the bladder was also supported, and in this way the relief of the trouble might be explained.

The PRESIDENT hoped that the speakers in their replies would more closely define the indications for those cases where ventrifixation was done for retroversion where the uterus was mobile. Accessory ventrifixation was in many cases a recognised and useful addition to a laparotomy performed for removal of appendages, &c., but he doubted if it was often a necessity apart from those cases. His primary ventrifixations did not amount to more than 3 per cent. of the abdominal sections, and they were almost entirely cases where in addition to the retroversion one or both ovaries were also prolapsed. Here ventrifixation had its most useful application. Plastic operations, curettage, &c., had each their special indication in these cases of retroversion, and these minor operations often relieved the patient better than a ventrifixation. If these failed then let ventrifixation be performed. It then became an operation of necessity.

The discussion was then closed by brief replies from the readers of the three opening papers.

PATHOLOGICAL SECTION.

Hæmolytic Complement.—An Unusual Organism Isolated from a Case of Septicæmia.—Congenital Malformation of the Heart.

A MEETING of this section was held on March 18th, Dr. R. T. HEWLETT, the President, being in the chair.

Dr. H. R. DEAN described experiments in which an attempt was made to obtain Hæmolytic Complement in a Stable Form. Absolute alcohol was cooled to −8° C., and fresh guinea-pig serum was cooled to 0° C. One part of cold serum was added to 10 parts of cold alcohol. The resulting precipitate was washed in two changes of cold alcohol and then in two changes of ether. It was finally filtered off and rapidly dried. The resulting powder was freely soluble in water and in saline solution. Solutions of the powder in isotonic saline solution produced a slight but definite degree of hæmolysis when added to sensitised red cells. On further examination it was found that the powder was rich in "mid-piece" fraction of the complement, but poor in "end-piece" fraction. The "end-piece" fraction was not recovered by evaporating the alcohol and ether employed in the preparation of the powder.

Dr. J. A. BRAXTON HICKS described a case of Septicæmia in which an unusual organism was isolated. The patient was a woman, aged 58 years, who was admitted to Westminster Hospital under the care of Dr. Stanley Dodd. She was feverish and complained of a vaginal discharge which had been present for eight months and had been getting worse. Under an anæsthetic the uterus was explored and nothing was found, but in the right pouch of Douglas was a small tumour of the size of a hen's egg. After the examination the temperature still kept up and after a week rigors supervened. The patient eventually died three weeks after admission. At the post-mortem examination a suppurating right broad ligament cyst was found full of foul-smelling pus. The inferior vena cava was in a condition of septic thrombosis, and there were multiple septic infarctions in the lungs. From the blood twice during life, from the suppurating cyst, and from the spleen at the post-mortem examination was isolated a Gram-negative, motile bacillus, growing well on all media with the production of a foul-smelling odour. The bacillus liquefied gelatin and clotted milk with subsequent peptonisation of the clot. Its action on the various sugars was variable. In glucose and sucrose it produced, as a rule, acid and gas; in the other sugars acid and gas production was feeble or absent. Its pathogenicity also was variable in guinea-pigs, fairly large doses killing, whilst smaller ones were survived. The organism belonged to the "proteus" group, and the interest lay in the fact that while usually this group is saprophytic, in this case it was distinctly parasitic.

Dr. C. REISSMANN showed Two Hearts with Congenital Malformation. The first was removed from a child who died two days after birth. It was amphibian in type, only one ventricle—the right—being present. There was also atresia of the aorta and a large pulmonary artery. The foramen ovale was patent. The second was removed from a woman, aged 40, who had been erroneously supposed to have pulmonary tuberculosis. There was some stenosis of the bulb of the pulmonary artery and also endocarditis of the pulmonary valves. The septum ventriculorum was patent. Dr. Reissmann considered that the pulmonary endocarditis was fœtal, and that the subsequent narrowing had by causing increased pressure led to the failure of closing of the septum.

SECTIONS OF OPHTHALMOLOGY AND NEUROLOGY.

Disease of the Pituitary Body.

THE discussion on Disease of the Pituitary Body was resumed at the combined meeting of these sections on March 12th.

Dr. H. G. TURNEY discussed at length a case which had been under his care, and which he showed at the last meeting.[1] The symptoms referred mainly to the posterior lobe. The patient was a woman, aged 25, who until 1907 was in no way abnormal. Before that time her menstruation had been regular, but since then it had been entirely absent. Her friends remarked on her increasing stoutness, and during the last two years she had noticed that she bruised with unusual readiness, especially on the legs. She also had pain in the back, starting from a kyphotic curve in the upper dorsal region and travelling round the ribs. Mentally she seemed unaffected, and her sight remained good except for the slight error of refraction which she had always had. Thyroid extract had been administered repeatedly, but had to be given up on account of palpitation. In spite of the obesity now present her weight was less than formerly; her face was now fat and florid; there was no puffiness about the eyes. The hair was dry and somewhat scanty, but the eyebrows were present. The expression was bright and the manner alert. The skin was not pigmented; pubic and axillary hair was scanty. The upper limbs were of normal size, but the lower limbs and buttocks were thin. The thyroid was normal in size and consistency. There was no evidence of enlarged thymus, lymphatic glands, or spleen. X ray examination showed absorption of posterior clinoid processes. There had never been increased intracranial pressure or involvement of the nervous system. In July, 1912, Mr. J. H. Fisher reported that the white, blue, and red fields were not transposed, and there was no certain evidence pointing to the probable development of temporal hemianopia. On recent examination, surrounding four-fifths of the right disc there was now a subretinal exudation of glistening character and ill-defined limits; no blood was there at present except two or

[1] THE LANCET, March 15th, 1913, p. 759.

three very fine spots on the white area; otherwise each fundus was normal. The blood pressure on admission was 200 mm. Hg, and it had remained at about that level ever since. There was a tendency to polycythæmia without other blood changes. At one examination the red cells reached 8,000,000. There had been a spontaneous fracture of the sternum between the manubrium and the gladiolus. The urine was normal, and there was no polyuria. The sugar tolerance limit was normal at about 120 grammes of lævulose. Professor W. E. Dixon had examined the urine, and found it to contain a pressor substance in considerable quantity. 10 c.c. of the urine injected into a cat raised the blood pressure 70 or 80 mm., whereas a similar injection of normal urine would lower the blood pressure nearly to the base line. Professor Dixon added that this patient's urine contained 100 times the pressor substance found in normal urine, and that it corresponded closely with the urines of cases of acromegaly he had examined. Extract of posterior lobe was given, at first subcutaneously, but this method had to be abandoned owing to the tendency to superficial necrosis. The patient exhibited no increased tolerance to carbohydrates. The presence of the pressor substance showed that the pituitary secretion was in excess. Dr. Turney discussed the case fully, his conclusion being that the patient had a pituitary-sexual-gland syndrome, the lesion being in the posterior lobe of the pituitary. A possible alternative was that there was a temporary failure of the element controlling carbohydrate metabolism.

Professor DIXON detailed his findings in a man the subject of acromegaly of ten years' duration. The patient had an enormous heart, but no rise of blood pressure. On injecting 1 c.c. of the urine into a cat the blood pressure went up, and the injection of 5 c.c. caused it to rise to 80 mm. The active substance was urohypertinsin. The man died suddenly as a result of some extra exertion, and post mortem the pituitary body was found to be of the size of a walnut. The heart weighed about 31b.

Dr. A. E. GARROD gave a description of a case in which myxœdema and acromegaly probably coexisted. The improvement under thyroid treatment left no doubt as to the thyroid defect. The evidence of acromegaly was less conclusive. A skiagram showed enlargement of the sella turcica.

Dr. WILLIAM HILL discussed the best route for operative treatment of pituitary tumour. He did not favour that advocated by Cushing, preferring that followed in submucous resection, and then taking the short, though dangerous, further step. The chief danger was that of wounding the optic chiasma. The Hirsch operation was simpler than that of Cushing, and Mr. C. J. Graham and he both found it gave good access to the tumour. He gave a word of warning as to the dangers of the operation, especially without exhaustive preliminary study.

Dr. W. LANGDON BROWN discussed the subject and showed photographs of a case.

Mr. F. RICHARDSON CROSS (Bristol) drew attention to the importance of the inter-relation of the various glands of the body in the economy, particularly ovaries, testes, pituitary, pineal, suprarenals, thyroid, and thymus. He had found great benefit from the administration of thyroid and pituitary extracts.

Dr. F. E. BATTEN and Dr. T. GRAINGER STEWART also took part in the debate.

SECTION OF LARYNGOLOGY.

Exhibition of Cases and Specimens.

A MEETING of this section was held on March 7th, Mr. HERBERT TILLEY, the President, being in the chair.

The PRESIDENT showed a Larynx removed (post mortem) from a patient, aged 58, who had worn a tracheotomy tube for 18 years. The operation had been performed for dyspnœa due to the cords remaining in a position of adduction.—Mr. T. W. P. LAWRENCE described the cricoid as congenitally deficient in the transverse diameter, and split by a gap filled in with a membrane continuous with that of the trachea. The rima was reduced by the consequent approach of the thyroid alæ and the close apposition of the mesial surfaces of the arytenoids.—The PRESIDENT considered some inflammatory condition must have determined the late onset of dyspnœa at 40 years of age.—Sir FELIX SEMON read notes of a somewhat similar case of his.

Mr. W. G. HOWARTH demonstrated Killian's Apparatus for Suspension Laryngoscopy, with a thyroid depressor calculated to bring the anterior commissure into view.—Mr. T. B. LAYTON suggested that it was more convenient to attach the "gallows" on the left side of the patient, as on one occasion he was compelled to perform tracheotomy during a "suspension" operation.—Mr. E. B. WAGGETT commented on the fact that the important pyriform fossa came into excellent view by this method, which was also praised by Sir FELIX SEMON and the PRESIDENT, in that both hands were freed from the irksome task of holding the laryngoscope in position.

Dr. DAN MCKENZIE showed a man, aged 56, in whom a Laryngectomy had been performed 14 days after tracheotomy. The upper end of the trachea was closed with catgut sutures and attached to the skin flaps. The transverse incision was left partly open and packed with gauze to absorb discharges. The tracheal sutures cut through in 10 days. The patient now breathed through the gaping end of the trachea, which by this time was separated from the upper wound. All diseased teeth were previously extracted and a feeding-tube retained in the œsophagus for 16 days.—Sir STCLAIR THOMSON commended the excellent result, but advised laryngotomy as a prelude to laryngectomies.—Mr. D. R. PATERSON considered that the above operation was excellent for patients with a short neck, as the trachea was thereby anchored to the skin before laryngectomy was performed.

Dr. DAN MCKENZIE also exhibited a case in which West's operation for obstructed nasal duct, consequent on an operation for ethmoiditis, had been performed. A flap of mucous membrane was turned back from the middle nasal fossa. The lacrymal canal was then opened by a gouge, and a communication made so that a lacrymal probe passed through the sac into the middle fossa.—Dr. D. R. PATERSON pointed out that the objection to West's operation lay in the after experience of patients who could not conveniently use a handkerchief without pressure on the lacrymal sac. Von Eicken had opened the naso-lacrymal canal into the antrum. Personally, he found the result of excision of the sac gave better results.

Mr. T. JEFFERSON FAULDER exhibited a man, aged 21, with Recurrent Loss of Voice. The inter-arytenoid space was occupied by a papillomatous mass; it was uncertain if adduction of the cords were prevented by the presence of this growth or infiltration; the trouble was probably tuberculous.—Mr. H. S. BARWELL considered the tuberculous tumour should be removed by angular forceps.

Mr. FAULDER also showed a Nasal Quadrilateral Cartilage with a circular hole; there was no deficiency in the mucous membrane. With such a condition during a subcutaneous resection, perforation of the mucous membrane had to be avoided.—Dr. DAN MCKENZIE considered the pressure of a crust led to the destruction of the mucous membrane and cartilage.—Dr. G. WILLIAM HILL related how in hæmatoma of the septum a perforation of the cartilage was always present.—Mr. E. B. WAGGETT alluded to the destruction of mucous membrane and cartilage described by Zuckerkandl as xanthosis of the mucous membrane.

Mr. E. D. DAVIS exhibited a Larynx removed post mortem and a patient. In both cases the epiglottis had been amputated for dysphagia due to tuberculous ulceration. Treatment in the first case had lasted over six months, and had included curetting the arytenoids under suspension laryngoscopy. The ulceration healed, but a relapse occurred during tuberculin B.E. treatment. The pain of increased ulceration was abolished by injection of eucaine and alcohol into the internal laryngeal nerves. An exacerbation of lung trouble resulted in death, but the vigorous local treatment had relieved the pain and prolonged life. The second case, a chronic one, had derived benefit from amputation, and was receiving tuberculin B.E.—Mr. H. S. BARWELL remarked that ulceration of the epiglottis usually indicated extensive tuberculous mischief, so that the ultimate fatal result detracted somewhat from the immediate relief of the operation. In a certain few cases, where the epiglottis only was affected, amputation gave the best results.

Mr. G. H. L. WHALE exhibited a specimen which had been removed after laryngotomy.—Dr. W. JOBSON HORNE some years previously had diagnosed prolapsed laryngeal ventricle. It had caused dyspnœa and dysphagia for five weeks. Part of the lumen had remained shut off and still

retained ciliated columnar cells, but the everted lumen had become covered with metaplastic squames.

Mr. BARWELL exhibited a man, aged 80, with Infiltration of both Ventricular Bands Anteriorly. The rest of the cords moved fairly well and were normal. Movable cervical glands and a small carotid aneurysm were present. The sputum contained numerous pneumococci, but no tubercle bacilli.—The PRESIDENT indicated that examination of one gland would determine the nature of the disease.

Mr. BARWELL also exhibited a case of a Suppurating Mucocele of the Frontal Sinus in a boy aged 12. The anterior and orbital walls projected as a hard swelling, while pus appeared in the hiatus semilunaris.—Dr. DAN MCKENZIE pointed out that one view regarded the sinus opening as occluded, but many of these cases were due to occlusion of a gland in the mucous membrane lining the wall of the sinus, and such appeared to be the condition in the present case, as pus was coming away.—The PRESIDENT had examined cases of mucocele and found the infundibulum open.—Dr. ADOLPH BRONNER had found injection of tincture of iodine of great help in chronic empyema of the frontal sinus.

Mr. FRANK A. ROSE exhibited a child, aged 10 months, with a Congenital Tumour of the Septum; it was pale and smooth, and caused obstruction from the first. Microscopically it appeared to be a glioma.

Mr. NORMAN H. PIKE exhibited an Encapsuled Spindle-celled Sarcoma removed from the tonsil. Two small cervical glands had also been dissected out.

Mr. J. F. O'MALLEY showed a man, aged 54, the subject of a Malignant Growth in the Antrum, and also a woman, aged 41, with Bilateral Purulent Rhinitis of three months' standing. There was no evidence of sinus disease. A microscopical examination of the anterior end of an inferior turbinal suggested lupus.—Mr. T. B. LAYTON had seen similar cases where removal of septic stumps had resulted in cure.

Dr. J. DONELAN'S case of Congenital Syphilis with sinking in of the nasal bridge and intranasal obstruction was discussed.—Mr. FAULDER suggested the subcutaneous insertion of a piece of cartilage along the track made by a tenotome in preference to paraffin.

Dr. DONELAN'S case of Post-diphtheritic Adhesion of Soft Palate and Cicatrices about the Mouth was next brought forward.—The PRESIDENT considered it doubtful if diphtheria gave rise to such considerable ulceration.

Dr. W. HILL brought a specimen of a large Pituitary Tumour and Brain from a patient who had died after operation by the nasal route for decompression. General signs of acromegaly were present, and enlargement of the pituitary fossa was indicated by a skiagram. Bitemporal hemianopsia was a symptom. A Killian incision was used and a burr applied to the roof of the larger right sphenoidal sinus. The passage of the burr was followed by free hæmorrhage, which recurred and was stopped by plugging the sphenoidal sinus. Death from increased intracranial pressure resulted in eight hours. Post mortem a large pituitary tumour was found containing a hæmatoma and distending the pituitary fossa. The hæmorrhage was due to perforation of the intercavernous veins or bleeding into the substance of the tumour. Dr. Hill discussed the difficulty of dealing with hæmorrhage in this operation, and recommended plugging the sphenoidal sinus as entailing less risk; he considered it was a matter of chance whether the intercavernous veins were damaged. As to the form of incision, he pointed out that Ollier's, by which the soft nose is turned down by an incision at the level of the nasal bones, placed the operator 1½ inches nearer the sphenoidal sinuses.

Mr. C. I. GRAHAM brought the specimen removed post mortem from the patient shown at a previous meeting. Unluckily, the growth was a perithelioma growing from the third ventricle, and, in spite of remarkable relief after the operation, the patient succumbed. He advocated splitting the skin over the inferior margin of the septum. At a second operation he had split the left nostril upwards, and obtained more room by removal of the middle turbinal; he had found hydrogen peroxide very uncertain in its action.—Mr. WAGGETT remarked that infantilism, which follows removal of the pituitary body, should be taken into consideration when dealing with these cases.—Mr. PIKE mentioned that Eisenberg operated with the head over the end of the table.—Mr. O'MALLEY had noted that Hirsch used nibbling forceps.

Dr. W. H. KELSON showed a section of the Pedunculated Growth removed from the Inferior Turbinal. It had the structure of a fibro-angioma, but it did not bleed. In discussing the matter with Dr. L. HEMINGTON PEGLER, he thought that the bleeding of these growths was a question of ulceration to which the inferior turbinal was not exposed.

The PRESIDENT, in discussing Mr. Layton's case of cyst of the tonsil, advised enucleation; he considered such cysts were an explanation of certain abscesses of the tonsil.

Mr. HOWARTH again brought his case of Papilloma of the Tonsil, from which a fibroma had been removed.—Mr. BARWELL and Dr. DAN MCKENZIE advised a microscopical examination in case the infiltration present denoted malignancy.—Dr. LOGAN TURNER discussed the possibility of tubercle being present.

Dr. A. BROWN KELLY related the details of a case of "Spreading Papilloma."

Dr. J. DUNDAS GRANT brought a case of Unilateral Paralysis affecting the palate and cord, probably due to suppuration at the apex of the petrous bone.

Mr. W. M. MOLLISON exhibited a case of Hæmatoma of the Right Side of the Larynx consequent on a kick.

SECTION OF ELECTRO-THERAPEUTICS.

The Use of X Rays in the Diagnosis of Pulmonary Tuberculosis.

THE discussion on the above subject was concluded at the meeting of this section held on March 19th, when Dr. REGINALD MORTON was in the chair.

Sir RICHARD DOUGLAS POWELL supplemented his observations made at the last meeting,[1] and exhibited skiagrams of two unusual cases. The first was apparently a case of miner's phthisis, the man having been working in the South African gold mines. He said he had a slight attack of what was regarded as bronchitis, unattended with fever. Probably it was influenza. Five physicians associated with the mines declared him to be suffering from tuberculosis, and he was told he must leave the mines, a respectable sum being paid him as compensation. As a bad prognosis was given, the patient came to London and consulted him (Sir R. Douglas Powell). The physical signs were those of some emphysema and fibrosis, most marked at the left apex. The dark mucus expectorated could not be proved to contain tubercle bacilli. A skiagram taken by Mr. C. R. C. Lyster seemed to show some fibrosis and pigmentation of the lung. The patient had air-hunger and attacks of heart failure. The heart did not, however, seem to be organically affected, so that probably the shock of the news about himself had produced a neurosis. The second case was that of a man, aged 35, who for some years had had a winter cough. Last May he had influenza, and the cough had persisted ever since. Occasionally he brought up clumps of blood, and there was sometimes choking regurgitation and flatulence. He also had some acidity, but his weight was maintained. There was no alcoholism in the case, but 12 months ago he had syphilis. The maximum impulse of the heart on the right side was in the fourth space, in the anterior axillary line. The heart dulness extended up along the axillary line and down to the base. The left lung extended well over the median line, as though it were considerably enlarged. But the skiagram showed the left mediastinum to be quite empty. Percussion over this was free and coarse. The possibilities were, he thought, sarcoma extending from the mediastinal glands, gummatous fibrosis of the lung, or tuberculosis with a cavity in the right lower lobe, leading to displacement of the heart. But none of these seemed exactly to accord with the symptoms and signs.

Mr. LYSTER considered the first of the cases to be one of "miner's phthisis," and from the radiographer's standpoint it provided a lesson. For though it was not tuberculous the markings or mottlings of the bronchi were almost indistinguishable from those of tuberculosis. He believed there was an actual deposit of earthy salts on to the bronchi, causing an irritation fibrosis. The deeper markings towards the hilum were probably due to enlarged glands, this enlargement also being a result of the irritation. He could not subscribe to the view that mottling in the bronchi indicated only tubercle; he had seen similar patches in children with pneumonia and whooping-cough.

Dr. DAVID B. LEES narrated three cases in which the conclusions based upon percussion changes were confirmed by X ray examinations, all of them in children. It would

[1] THE LANCET, March 8th, 1913, p. 685

be most important to settle, he said, whether the groups of opacities referred to meant definitely tubercle, or whether similar shadows could be cast by results of past bronchitis or other conditions. His own observation led him to believe that such grouping did definitely mean tubercle.

Dr. SYDNEY A. OWEN gave particulars and exhibited skiagrams of a large series of cases, comparing the physical signs with the X ray findings.

Dr. N. S. FINZI discussed the mechanism and technique of chest radiography, laying great stress on the necessity of instantaneous radiography and on the patient holding his breath during the taking of the picture. He projected three skiagrams of the same case taken in different ways to show the graded amount of sharpness of detail.

Dr. YOUNG thought that at the last meeting the question was too scientifically or academically considered. The object was to make the earliest possible diagnosis of tuberculous disease. The question of the earliest sites to receive tuberculous deposits was one which could only be settled pathologically. That in most cases that site was the bronchial glands was not seriously in dispute in regard to children, but in adults it was not settled whether it was a recrudescence of old quiescent lesions or whether it was a definite reinfection. One did not look to X rays to decide that. The name "peribronchial phthisis" did not appeal to him. He would distrust X ray findings which were not definitely correlated with the symptoms, or even with the physical signs. Could X rays reveal a deposit in the bronchial glands before there was clinical evidence of such deposit? Could the rays differentiate old healed, quiet lesions from recent, active, progressive ones at the hilum or the apices?

Dr. SCOTT expressed his agreement with the remarks of Dr. Finzi and Dr. Young, and emphasised the importance of settling what were the normal X ray appearances. Several skiagrams shown of avowedly normal lungs showed considerable differences. At present one could not say a person had peribronchial phthisis from the radiographic picture alone. That term he considered much too vague.

Dr. R. MURRAY LESLIE raised the question why, if such a large proportion of people had pulmonary tuberculosis, there was such a small mortality from the disease. Monti, of Vienna, and others, had shown that though the majority of people before their fifteenth year had tuberculosis, 80 per cent. would not show symptoms of it, the explanation being that the early acquaintance with the disease conferred an immunity during the remainder of life. He agreed that instantaneous radiography promised much advance in interpretation, and supported Dr. Finzi's contention as to the importance of the patient holding the breath.

Dr. E. L. COLLIS spoke about the appearances in silicosis, caused by the dust of factories, the subjects of which were usually dead in six months.

Dr. A. A. BARCLAY did not agree as to the occurrence of "peribronchial phthisis." He had examined some 400 cases who were presumably free from tuberculosis, and found root shadows in practically every case.

Dr. P. H. S. HARTLEY said that in 263 post-mortem examinations 9·1 only had caseous bronchial glands, the patients having died of phthisis. He agreed with Dr. Lees that the early percussion signs were mostly in the apices. Further observation and knowledge were required concerning the cases where the hilum was involved.

EDINBURGH OBSTETRICAL SOCIETY.

Pelvic Hæmatocele from Rupture of a Blood Cyst of the Ovary.—Exhibition of Specimens.—Some Rare Uterine New Growths.—Two Cases of Uterine Fibroids.

A MEETING of this society was held on March 12th, Dr. J. HAIG FERGUSON, the President, being in the chair.

Professor J. A. C. KYNOCH (Dundee) read a paper on Pelvic Hæmatocele from Rupture of a Blood Cyst of the Ovary. The patient was 38 years of age, and had had five children. After the last child she had menstruated irregularly and painfully. The attacks of pain had become more severe for a month before coming under observation. She was then weak, and on examination a swelling was found to the right of the uterus and an indistinct fulness in the posterior fornix. On cœliotomy the left ovary and tube were found to be normal, also the right tube. The right ovary was cystic and of a bluish colour, and at one part of its wall there was a blood clot protruding through a rent in its surface. It was an ovarian cyst into which bleeding had taken place with an escape of blood at intervals. Blood was found in the peritoneal cavity, and the peritoneum had the greenish hue often found in peritoneal hæmorrhage. Professor Kynoch gave references to numerous causes of hæmatocele other than extra-uterine pregnancy.—Dr. A. H. F. BARBOUR said in the early "seventies" hæmatocele was thought to be due to various causes, but on purely theoretical grounds. When Lawson Tait began to operate and gave his results almost every case was then supposed to be due to extra-uterine gestation.—Dr. F. W. N. HAULTAIN stated that he had had six cases where on opening the abdomen free hæmorrhage was found without any sign of ectopic gestation. Two of these cases were simple regurgitation through the tube during menstruation. In one of these the girl had suffered from repeated attacks and had no vagina. Two other cases were from rupture of vessels in fibroids; in one bleeding had taken place to such an extent from a large vein on the surface of the fibroid that she died during the operation; in the other there was a laceration on the surface of the fibroid. Of the remaining two cases, one was due to rupture of the broad ligament, the other was an ovarian hæmatocele. In five out of these six cases there was no hæmatocele, but a general effusion of blood into the peritoneal cavity.—Dr. JAMES YOUNG mentioned a specimen in the laboratory of the Royal College of Physicians of Edinburgh of an ovary in which the corpus luteum had ruptured and caused peritoneal hæmorrhage.—The PRESIDENT said that hæmorrhage from the ovary was a more frequent thing than was supposed. He thought it accounted for painful conditions at menstruation. On opening the abdomen he had found a small amount of hæmorrhage associated with menstruation. Last year he had read a paper on hæmorrhage from the corpus luteum after hysterectomy.

Dr. E. NAPIER BURNETT (Newcastle) showed a specimen of Bacterial Infection of the Chorion, with microscopic slides. The patient, aged 28, was in her first pregnancy. During the twentieth week there occurred a watery discharge during the night, which continued intermittently for 16 days, when it terminated in abortion. There was no liquor amnii. An area of about the size of the hand was observed, of a yellowish colour, where the two membranes were adherent; this piece of membrane corresponded to the lower uterine segment. On the eighth day the patient became sick and vomited and the temperature rose, which was considered to be due to a uterine condition, but the attack only lasted 24 hours. There were interesting points in the case. Was the source of the discharge due to premature rupture of the membranes? The patient was not examined vaginally by anyone until the labour was in progress. Then organisms must have been lying about the organs somewhere. It was a question whether the bacterial infection was the primary cause which had so weakened the membranes as to cause them to rupture, or was the infection an ascending one secondary to rupture of the membranes?

Dr. YOUNG showed a model explaining the Cause of Internal Rotation of the Fœtal Head, and illustrated his explanation with diagrams.

Dr. HAULTAIN showed a Large Ovary with a Very Large Corpus Luteum. The patient, aged 24, during her second pregnancy began to complain of very severe pain about the third month; the pain was so great that she was invalided for the rest of the pregnancy. The pain got worse after the child was born, confining her to bed. When seen three months after the birth of the child the uterus was enlarged almost to the extent of a three months' pregnancy, and the right ovary was enlarged. A course of douching and plugging did not improve the condition, so the ovary was removed. The ovary was much enlarged and contained a huge corpus luteum. A most interesting observation was made on the blood. Before the operation the blood was examined and found to contain 5,800,000 red corpuscles, 19,213 white cells, showing an enormous leucocytosis, yet there was no sign of inflammation anywhere else. There were 74 per cent. polymorphs, 19 per cent. small mononuclears, 5 per cent. large mononuclears, and 5 per cent. eosinophiles. The day after the operation the pain was gone. One week after the blood showed 4,875,000 red cells and 16,000 white cells, polymorphs

64 per cent., small mononuclears 31 per cent., eosinophiles double, and the large mononuclears less. The uterus returned to its normal size in two months. Was this a persistence of the corpus luteum of pregnancy, and was it the cause of the extraordinary state of the blood?

Dr. HAULTAIN read a paper on Some Rare Uterine New Growths. The first was a case of diffuse papilloma of the corpus uteri. The patient was 59 years of age. She had ceased menstruating at 45. Two years later a slight irregular hæmorrhage had occurred and continued at intervals of eight to ten weeks. It had never been excessive till shortly before being seen. The cervix was found atropied and the body small and movable, the body measuring 2¼ inches. On curetting, the lining membrane of the uterus was found to be soft and spongy, and showed a typical simple papillomatous structure. Contrary to expectations, the bleeding recurred in a few weeks, so the uterus was removed. The naked-eye appearances were similar to those of fungous endometritis, but the microscopic appearances of the stroma showed the stellate corpuscles with their anastomosing processes and small-celled infiltration to be replaced by distinct fibrous connective tissue. Only one other similar case mentioned by Bland-Sutton could be found; he removed the uterus from a woman aged 83. The next case was one of primary tuberculosis of the cervix. The patient was a virgin, aged 35, who had suffered from severe leucorrhœa and increasing weakness. Under an anæsthetic the cervix was found to be rough and irregular, but not friable and hæmorrhagic as in malignant conditions. It was of a purple colour and covered with numerous papillæ, giving the appearance of a large blackberry. The body of the uterus was normal in size and movable. The cervix was removed by the high supravaginal method. The microscopical examination showed presence of numerous tubercular foci in the tissue of the cervix, mainly disposed towards the vaginal aspect and in no way involving the mucous lining of the canal. There was no trace of tubercular disease elsewhere, and being a virgo intacta, there could be no direct infection. She has remained in the best of health since the operation 16 years ago. The third case was one of diffuse nodular fibrosis. Two examples have been found in 700 hysterectomies for uterine fibromyomata. The pathological change consists in the formation of innumerable small fibroid nodules, varying in size from a pin's head to a hazel nut. Between these nodules there appears to be little muscular tissue to form a capsule as in ordinary fibromyomata, yet each nodule forms a separate fibrous entity, entirely distinct from those immediately surrounding it, which clearly differentiates the condition from an ordinary diffuse fibrous thickening or chronic hyperplastic metritis.

Dr. BARBOUR read a paper on Two Cases of Uterine Fibroid in which degeneration in the tumours—perithelioma and necrobiosis—caused difficulty in diagnosis. In the case of perithelioma the patient was aged 62, and a large sloughing fibrous polypus had been removed seven years previously. For the following five years she was perfectly well, then began to feel weak and easily tired. She had no pain, but noticed a gradual swelling of the abdomen, which was now distended by a large tumour of the size of a seven months' pregnancy, having throughout a tense consistence resembling a distended uterus. On abdominal section the tumour appeared bluish-white and was removed by supravaginal hysterectomy. On cutting into it more than two pints of blood-stained fluid escaped from a single cavity, taking the place of an interstitial myoma, round which the uterine cavity extended for one-third. The greyish-white material lining the cavity showed peritheliomatous degeneration. The case of necrobiosis was from a patient, aged 51, complaining of abdominal swelling with acute pain, for which she had to be kept for some days under the influence of morphia. On admission she was in a state of extreme collapse. The abdomen was distended with a tumour of the size of a seven months' pregnancy. Operation was performed at once, when the abdominal section revealed a large myoma of a bluish colour which was removed by supravaginal hysterectomy. There was no fluid and no adhesions. The patient did not improve after operation, dying on the sixth day. The post-mortem examination showed broncho-pneumonia. Death was attributed to toxæmia from the extensive necrobiotic change which affected the whole tumour.

Dr. BURNETT, Dr. J. LAMOND LACKIE, Dr. YOUNG, and the PRESIDENT made remarks on the papers.

LIVERPOOL MEDICAL INSTITUTION.—A pathological meeting of this society was held on March 13th, Mr. Robert Jones, the President, being in the chair.—The following specimens were shown and described:—Dr. H. Holmes and Dr. R. E. Harcourt: Extreme Buphthalmos.—Dr. Harcourt: (1) Retinal Hæmorrhage; and (2) Melanotic Sarcoma.—Mr. K. W. Monsarrat: (1) Stone in a Bladder-pouch; (2) Stricture of the Colon associated with Acute Phlegmonous Colitis; and (3) Sarcoma of Orbit.—Mr. W. Thelwall Thomas: (1) Sarcoma of Femur; (2) Embryonic Cyst of the Thyroid; (3) Hypernephroma of Kidney; and (4) Unusual Tumour of Breast.—Dr. J. H. Abram and Professor Ernest E. Glynn: Cirrhosis of Liver in a Child.—Professor Glynn: Cirrhosis of the Liver in a Cart-horse.—Professor Glynn and Mr. F. A. G. Jeans: Hæmorrhagic Pancreatitis.—Mr. R. E. Kelly and Professor Glynn: Richter's Hernia.—Mr. T. C. Litler Jones and Professor Glynn: Femoral Hernia.—Professor Glynn: Enlarged Thymus from case of Diphtheria.—Dr. W. Blair Bell: Meckel's Diverticulum with Diverticula.—Mr. Monsarrat, Professor Glynn, Mr. Thomas, and Dr. Blair Bell discussed the specimens.—Mr. Thomas's tumour was referred to the Pathological Committee for investigation and report.—Professor Glynn, Dr. G. Lissant Cox, and Miss P. M. Powell communicated a short paper on Methods of Standardising Vaccines. Their conclusions were as follows:—1. Wright's method frequently underestimates the strength of bacterial vaccines by 100 per cent. or more. This is undoubtedly mainly due to the unequal distribution of the bacteria and red blood corpuscles in different parts of the smear. 2. The plate culture method is cumbersome and underestimates the strength of bacterial emulsions by 100 per cent. or more when prepared from cultures 24 hours old, as many of the bacteria are dead; and also because it is impossible to obtain an absolutely homogeneous emulsion with every bacterium separated from its fellow. 3. The hæmocytometer chamber method using an oil immersion lens and some weak stain is the most satisfactory, and is more accurate than either Wright's or the plate culture method. 4. The ordinary coverslip used in microscopical preparations is inadmissible for the ordinary hæmocytometer chamber, which is 0·1 mm. deep, as it is neither rigid nor optically plane. A reinforced coverslip, however, 0·13 mm. thick, would be both rigid and optically plane and suitable for all ordinary achromatic oil immersion lenses, when employed with chambers 0·1 mm. deep. (5) A counting chamber 0·04 or 0·02 mm. deep, however, is superior to the one usually employed for three reasons: (*a*) the greater ease with which the bacteria adhering to the under surface of the coverslip may be counted; (*b*) the rapidity with which the bacteria settle; and (*c*) the improved definition of the bacteria. (6) Weak carbol thionin is the cleanest and most satisfactory staining solution. They are unable at present to express any opinion with regard to the value of the gravimetric method.—Dr. J. R. Logan expressed his appreciation of the value of the work which had been carried out by the writers of the paper.—Dr. Blair Bell gave a lantern demonstration of colour photomicrographs illustrating experimental work in which he had been engaged in connexion with the genital functions of the ductless glands.

MANCHESTER MEDICAL SOCIETY.—A meeting of this society was held on March 5th. Dr. J. J. Cox delivered his presidential address, taking as his subject Multiple Infective Arthritis, and referring specially to the arthritis deformans type. After directing attention to the great prevalence of the disease in this country, he said: The records of the Devonshire Hospital, Buxton, alone show that on an average 625 cases of infective arthritis are admitted annually. Amongst these are included, in addition to typical cases of arthritis deformans, cases of gonococcal, septic, syphilitic, and tubercular joint infections, but not cases of osteo-arthritis. The causation of the disease is most probably some as yet undiscovered organism or organisms most easily affecting individuals at certain stages of development, such as puberty or the climacteric period, when run down by frequent child-bearing, or when the health has been vitiated by oral sepsis, digestive disturbances with absence of free hydrochloric acid in the gastric secretions, chronic intestinal stasis, leucorrhœa or other abnormal conditions of the genital organs. Individuals suffering from pneumococcic,

influenzal, rheumatic, or gonococcal infection are liable to develop arthritis deformans, but in all probability this is brought about by some mixed or added infection. The toxins produced may act in various directions: (1) by elimination through the joints causing the articular and periarticular, characteristic deformities and loss of proper function, specially seen in the hands and fingers; (2) upon the nervous system, as shown by rapid pulse, sweating, loss of cutaneous sensibility, atrophy of muscles at times preceding the joint changes, and a Babinski reflex is fairly often met with; (3) upon the blood-making functions, as shown by profound anæmia; and (4) upon the lymphatic glands and spleen, as in Still's disease. The theory of the neural origin of arthritis deformans will probably have to be given up altogether. Dr. Poncet and Dr. Leriche in their book published last year state their view that many cases of infective arthritis are due to the effects of an attenuated virus of tubercle, which means that the joint changes stand towards tubercle as the parasyphilides do to the infection by the spirochæta pallida. There is urgent need for thorough research work by experienced and competent bacteriologists to unravel the many problems of arthritis deformans. The bacteriology of the urine specially calls for research. As regards treatment of arthritis deformans, early and accurate diagnosis is the first essential. Few drugs are of much avail except guaiacol, arsenic, potassium iodide, aided by iron and cod-liver oil. The patient's strength must be kept up by proper and generous diet. Chronic intestinal stasis must be thoroughly dealt with by aperients, Plombières douches, and skilled massage; every patient with chronic constipation is perilously near the risk of developing arthritis deformans, for a recent investigation at the Devonshire Hospital showed that 78 per cent. of the arthritis deformans patients gave a history of chronic constipation. It would be well to try the effect of giving in the early stages hydrochloric acid and glycero-pepsine, on the lines advocated by Dr. A. S. Woodwark and Mr. R. L. Mackenzie Wallis in THE LANCET of Oct. 5th, 1912, following up the work of Dr. Helen Baldwin in 1904. The use of baths at Buxton, Harrogate, and Bath is beneficial in many cases, and radiant heat, massage, and blistering along the spine have all at times seemed of use. Prognosis depends on severity of infection, circumstances of patient, heredity, &c.

BRISTOL MEDICO-CHIRURGICAL SOCIETY. — A meeting of this society was held on March 14th, Professor Walter C. Swayne, the President, being in the chair.—Dr. P. Watson-Williams showed a case, one year after removal, of an Extensive Epithelioma of the Larynx without recurrence, but with some stridor from cicatricial contraction.—Mr. Hubert Chitty showed an infant, aged 6 weeks, with on the left side congenital absence of the ulna and two digits with their metacarpals and on the right side absence of one digit and its metacarpal.—Dr. Carey Coombs, in a paper on Certain Adventitious Pericardiac Sounds, pointed out the frequent occurrence in cases of cardiac valvular lesions of pulmonary crepitations over the third left interspace in front, particularly in cases of mitral stenosis. He said that these were probably due to collapse of the lung margin, owing to pressure of the enlarged conus arteriosus, together with hyperæmia, and were of interest in that they not uncommonly led to a mistaken diagnosis of pulmonary tuberculosis. The stationary condition of the signs together with the absence of tubercle bacilli in the sputum were sufficient to negative the presence of tuberculosis.—Professor J. Michell Clarke remarked that the limitation of these crepitations to the first deep inspiration during auscultation pointed to their being due to a condition of atelectasis.—Dr. J. R. Charles, in an examination of some thousands of post-mortem records, had found that the coexistence of pulmonary tuberculosis and mitral stenosis was a rare occurrence.—Dr. Charles read a paper on the Etiology of Migraine, in which he propounded the theory that the symptoms of migraine were due to a transient swelling of the pituitary gland. Such swelling was known during pregnancy, and from the anatomical position of the gland it was conceivable that if swollen it might show effects on the optic nerves and those in the walls of the cavernous sinus. The vasomotor effects might be explained by an increased secretion from the posterior lobe.—Mr. H. Elwin Harris did not think that the theory could explain in his own case the occurrence of hemianopsia half an hour before the headache.—Dr. Coombs did not see how the association of migraine and epilepsy could be explained by this theory.—Dr. Watson-Williams read notes and showed a specimen from a case of Cerebro-spinal Rhinorrhœa, in which there was an opening found in the dura and bone of the anterior fossa post mortem, death occurring from meningitis from a complicating frontal sinusitis. During life the cerebro-spinal fluid had caused a fluctuating swelling at the inner orbital margin, thus simulating an ethmoidal mucocele.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held in Sheffield on March 14th, Dr. W. E. Fothergill (Manchester), the President, being in the chair.—Professor J. B. Hellier (Leeds) showed: 1. Two specimens of Ruptured Ectopic Gestation, one of them of the interstitial variety. 2. A specimen from a case of Septic Miscarriage infected by B. aerogenes capsulatus.—Mr. P. E. Barber (Sheffield) showed a case of Torsion of the Pedicle of a Subperitoneal Myoma.—Dr. Arnold W. W. Lea (Manchester) reported: 1. A case of Cæsarean Section for Concealed Accidental Hæmorrhage. The uterus was not removed and the patient made a good recovery. 2. A case of Panhysterectomy for Interligamentous Myoma.—Mr. A. W. Cuff (Sheffield) reported a case of severe Metrorrhagia in a young woman.—Mr. Miles H. Phillips (Sheffield) showed a case of Ruptured Uterus treated by Vaginal Hysterectomy. The vaginal route and clamps were used as the uterus was infected and the patient collapsed. The patient made a good recovery, and had no further rise of temperature.—Dr. Catherine Chisholm (Manchester) read a paper on a Comparison of Menstrual Disturbances in Adolescence and Adult Life. A comparison of cases of adolescent and adult women showed that more of the latter suffered discomfort during menstruation than the adolescent ones. Constipation, sedentary employment, lack of exercise, overwork, and great mental strain appeared to produce menstrual discomfort. In very few instances did the menstrual discomfort interfere with the working capacity. The appearance of pain indicated a pathological condition which ought to be investigated and treated as soon as it developed.—Dr. Lea read a paper on Three Cases of Kyphotic Pelvis treated by Cæsarean Section, with skiagrams of the three pelves. All these pelves had very narrow outlets, 2–2¼ in. All the patients and children recovered. A pelvimeter for measuring the outlet of the pelvis was shown and described.

HUNTERIAN SOCIETY.—A meeting of this society was held on March 12th, Dr. Andrew S. Currie, Vice-President, being in the chair.—Dr. H. Letheby Tidy read a paper on Myeloblastic Leukæmia, with illustrative microscopic slides.—Dr. F. Howard Humphris read a paper on Non-infective Inflammation and Modern Electro-Therapeutic Measures in its Treatment, and pointed out that stasis in simple inflammation was a bar to complete restitution, and that the indication in almost any stage of inflammatory process was the resolution of the local condition of infiltration. He said that when a suitable electric current was used infiltration was dissipated, circulation was restored, and a healthy physiological activity displaced the former pathological torpor, and added that static electricity stood pre-eminent in producing mechanical effects. When administered it induced successive contractions and relaxations, expressing fluid and semi-fluid débris on the mass of tissue involved. Several diseases were instanced, such as prostatitis, synovitis, neuritis, lumbago, and other forms of fibrositis, and the argument was made from the pathology of these conditions and the mechanical action of the current that, with the removal of the stasis, came the relief of the disease, of which the stasis was either the cause or complicating concomitant.—Mr. E. Rock Carling read a paper on Some Injuries of the Fingers, showing radiograms.

ERRATUM.—In the report of a meeting of the Manchester Medical Society which appeared in THE LANCET of March 8th, 1913, p. 687, a mistake occurred. In Dr. Arnold Renshaw's last sentence the words "without a slightly positive reaction," should have read "with only a slightly positive reaction."

Reviews and Notices of Books.

Heredity. By J. ARTHUR THOMSON, M.A. Second edition. London: John Murray. 1913. Pp. 627. Price 9*s.* net.

WE are not surprised that Professor Thomson's work on Heredity should so soon have reached a second edition, for it is exactly the book that the public, as well as men of science not exactly engaged upon studies of evolution, inheritance, or variation, require. It makes no attempt to compare with the authority of the records of detailed and personal investigation which occur in the works of Darwin, Galton, Bateson, and others whose names are generously scattered up and down Professor Thomson's pages; it is rather—as the author intended that it should be—an introduction to the study of heredity, for the literature of heredity is so widely scattered and often so highly technical that it requires an exposition which should be at the same time comprehensive and accurate without being exhaustive or mathematical.

The reader will find the general subjects of heredity and inheritance well defined and summarised in the beginning of the book, where the physical basis of inheritance and its common modes of expression are explained, the causes of variation being also set out with an explanation of Professor Hugo de Vries's mutation theory. This theory, which is certainly one of the greatest advances made since the "Origin of Species" was published, has been by unobservant persons assumed to oppose the Darwinian theory of descent, but it will be seen that de Vries himself claims to be in full accord with the principles laid down by Darwin, though the doctrine of mutation assumes that new species and varieties are produced from existing forms by sudden leaps and not necessarily by slow changes into other types. An interesting chapter deals with telegony and such disputed questions as xenia and maternal impressions; and in each case Professor Thomson, though strictly avoiding any partisan handling of his theme, indicates that the stories upon which these phenomena are founded will not bear investigation. His attitude is the same with regard to the transmission of acquired characteristics, and the enormous importance of this question makes it necessary to insist that as yet no one is entitled to rank the transmission of acquired characters, that is somatic modifications, among the facts of inheritance. In a very able chapter Professor Thomson sums up what appears to be an interminable question, interminable because those who give an affirmative answer cannot prove their case, while those who deny that acquired characteristics can be transmitted cannot prove a negative. With regard to the far smaller questions of telegony and xenia Professor Thomson says that more work must be done. He does not hide his own views when he states in conclusion: "If there is little or no scientific warrant for our being other than extremely sceptical at present as to the inheritance of acquired characters—or better, the transmission of modifications—this scepticism lends greater importance than ever, on the one hand, to a good 'nature,' to secure which is the business of careful mating; and, on the other, to a good 'nurture,' to secure which for our children is one of our most obvious and binding duties."

The Mendelian law is expounded in a chapter on the experimental study of inheritance, a chapter which is followed by a section dealing with the various theories of heredity and inheritance associated with the names, among others, of Haeckel, Jäger, Galton, Brooks, Weismann, and Nussbaum. All the different doctrines are carefully defined, and the elaborate treatment awarded to Mendelism is a kind of testimonial to value which the supporters of the theory will welcome, having in some quarters been treated as though their serious and suggestive investigations were merely antics in a sidetrack, and not genuine progression.

It is almost a proof of the well-balanced character of Professor Thomson's book that we, looking at the subject from the medical view in particular, should find the chapter on heredity and disease a little unsatisfactory. Probably the enthusiastic Mendelian would say the same of the exposition of Mendelian discoveries and the estimate of their practical importance upon which we have just congratulated the author. The Mendelian might find the references to his personal branch of science too brief, and similarly it would not be difficult to indicate directions in which the vast subject of heredity in disease could have been more fully treated. But we observe that attention is properly called to the undue stress which has been laid upon the inheritance of disease by the medical writers of the immediate past, and as much of medical knowledge on the subject is still a matter of controversy Professor Thomson has probably been wise in his comparative brevity. He points out that if the inheritance of disease had really occurred to the extent and in the manner that medical writers have assumed with so much conviction the human race would by this time have been extinct, and those of us who recollect the strict teaching of thirty years back will agree with the substance of a rather extravagant statement.

A valuable book closes with a bibliography, a subject index, and an adequate general index, and between its covers there will be found an excellent introduction to the study of heredity with all the facilities for obtaining further information along any particular line of study that may be sought.

Text-book of Meat Hygiene. By RICHARD EDELMANN, Ph.D. Authorised translation revised for America by JOHN R. MOHLER, A.M., V.M.D., and ADOLPH EICHHORN, D.V.S. With 152 illustrations and five coloured plates. London: J. and A. Churchill. 1912. Pp. 392. Price 21*s.* net.

THIS is a well compiled book and deals with a subject of wide importance. Indeed, in view of the stringent control properly exercised over the meat industry in civilised countries, the need for an authoritative work on the subject of meat inspection and the conditions under which it is prepared for public consumption becomes urgent. Such a work has for some time been available in Germany, the author of which, Dr. Richard Edelmann, is the Royal State Veterinarian of Saxony and professor at the Royal Veterinary High School in Dresden, who admittedly has had a very wide experience of the meat industry and its correlated subjects. The Government of the United States has perhaps advanced further in the matter of legislative effort in regard to controlling the purity and wholesomeness of meat supplies than most civilised nations, with the result that a very efficient equipment of trained inspectors in that country has been instituted, which involves the expenditure of a large sum of money allocated annually by the Government under the provisions of an Act passed in 1906. The application of Edelmann's work in America as an authoritative text-book and practical guide on meat inspection suggested therefore that an American edition should be undertaken. The work of translation has been done by the chief of, and the senior bacteriologist respectively to, the pathological division of the United States Bureau of Animal Industry. The collaboration is a strong one, and the fruit of their labours is an authoritative volume on the subject in the English language, which places at the disposal of all concerned a valuable guide on the many points that arise in carrying out the duties of meat inspection. Although the edition before us has been adapted to American requirements, the particular regulations of the

Department of Agriculture having been inserted together with sections which refer to regulations applying to various conditions, there can be little doubt of the great practical value of the book to meat inspectors, veterinary surgeons, medical officers, and others in this country. In support of this view reference need only be made to the chapters on the morphology and chemistry of the principal tissues and organs of food animals, the inspection of slaughtered animals, methods of slaughter, and so forth. The final chapters, also, on meat poisonings, the history of meat hygiene, abattoirs, and stockyards, furnish valuable material of an equally cosmopolitan kind.

The publication of this book advances the whole question of hygienic meat-supply, and the system which it teaches should do much to bring the meat industry nearer to sanitary ideals.

Bacteria. By Dr. MAX SCHOTTELIUS. With ten coloured plates and 33 illustrations in the text. Second edition. Translated by Staff-Surgeon HERBERT L. GEOGHEGAN, R.N. London: Henry Frowde and Hodder and Stoughton. 1912. Pp. 324. Price 8*s.* 6*d.* net.

THE author aims at dealing with his subject in such a simple, intelligible way, and with such a general outlook, that it will appeal to a wider circle of readers than one purely scientific or medical, and will make them conscious of the responsibility of medical activity in the fight against disease and enlist their own interest and efforts in the struggle. In pursuance of this idea two new chapters have been added to the present edition. Dr. Ernest Schottelius, the author's son, writes on "Immunity and Protective Vaccination," since the success of serum therapy has made the scientific basis for protective inoculation against infectious diseases of interest to the general public. The increasing number of diseases attributable to protozoa has also necessitated the introduction of a chapter on these organisms, written by Dr. Emil Küster, the author's assistant. In addition there are considerable alterations; the text has been revised, and some inaccuracies that occurred in the first edition have been corrected.

The work commences with a consideration of the position of bacteria in the scheme of Nature, and as examples those organisms are cited which are of daily use in the making of bread, the alcoholic fermentation, and the production of vinegar. The methods used in bacteriological investigation are then described, together with the forms, composition, and methods of reproduction of bacteria. The usefulness and necessity for animal experiments are rightly insisted upon. Disease, with its sources in water, milk, and preserved foods, and the methods by which it may be combated, is next treated, and this leads to the clear and readable exposition of the simpler facts and theories of immunity and protective vaccination, with a short account of serum therapy and the protective substances on which it depends. Some of the more important infectious diseases and the modes by which they are spread are then dealt with, but there appears to be no mention of carriers as a source of infection, and but little attention is given to the importance of the rat-flea mode of transmission in plague. In the new section on protozoa there is an account of dysentery, trypanosomiasis, malaria, and relapsing fever, with their parasites, besides a general consideration of the protozoa. Useful diagrams are given of the culex and anopheles mosquitoes with the characteristic resting positions of the insects and their larva.

The book seems to be accurately translated, but there remain traces of the length and construction of the German sentences which make it occasionally difficult to read the text easily and rapidly. There are a few slips in printing, and on p. 164 the weight of the guinea-pig has been transposed with startling results. Similarly on p. 304 the male and female culex have become mixed.

The book is neatly got up, and the type and paper are good, while the majority of the diagrams are satisfactory and well reproduced.

The Wassermann Reaction: its Technic and Practical Application in the Diagnosis of Syphilis. By JOHN W. MARCHILDON, B.S., M.D., Assistant Professor of Bacteriology, St. Louis University Medical School. With 11 illustrations and coloured frontispiece. London: H. Kimpton. 1912. Pp. 103. Price 6*s.* 6*d.* net.

THIS small book purports to teach in detail the technique of the Wassermann reaction and to give some account of the results that have been obtained by its use. After an introduction in which the underlying theoretical considerations are explained, successive chapters are devoted to descriptions of the methods used in the production of the various substances needed for the test, such as the hæmolytic amboceptor, the complement, the red blood cells, and the antigen. Finally, the technique of the complete test is given. The facts in these chapters are generally accurately stated, but the style is not very lucid and suggests haste, or a lack of literary skill makes the book read like a translation. To say that the hæmolysins are strictly specific is not quite accurate, for hæmolytic sera may destroy more than one variety of corpuscle; nor is it wise to suggest the use of an air incubator instead of a water bath in the hæmolytic period, as much time is saved by the use of the latter.

In the portion of the book dealing with the clinical applications of the test the author regards the reaction as of value in the early diagnosis of the chancre, though usually a period of a week to a month elapses after the appearance of the lesion before the reaction develops. Most authorities regard 60 per cent. as the usual proportion of cases of tabes with a positive reaction, and do not find it constantly present as the author does. It is also unusual to find that the reaction is invariably influenced by antisyphilitic treatment.

The book will no doubt prove useful, but there are already available to the student other works covering the same ground which are clearer and more accurate.

Traité de la Rage. Par le Professeur Dr. VICTOR BABES, Directeur de l'Institut de Pathologie et de Bacteriologie de Bucarest. With 11 figures in the text and five coloured lithographic plates. Paris: J. B. Baillière et Fils. 1912. Pp. 677. Price 16 francs.

THIS remarkably complete monograph on rabies is welcome, inasmuch as a sufficiently comprehensive *revue d'ensemble* has hitherto been lacking. Dr. Babes is eminently fitted for the task, seeing that for 20 years and more numerous articles on the symptomatology, pathology, and experimental pathogenesis of rabies have come from his pen. The significance of the disease has been enhanced by recent discoveries in association with epidemic poliomyelitis, and as in many ways these two morbid conditions resemble one another it is probable that the discovery of the exact nature of the virus of the one will be the prelude to the discovery of the other. It belongs to the class of filterable viruses, a class under which a number of well-recognised diseases, both in man and animals, are included, and in regard to which much more is known to-day than was the case only a few years ago.

An interesting historical chapter on rabies is followed by an account of its geographical distribution and epidemiology, and of the legislative efforts of different countries to combat the disease. Then comes a section on prophylaxis, and another on the measures to be adopted by the practitioner, the veterinary surgeon, and the individual affected,

respectively, in a case of rabies. From the point of view of practical medicine this chapter could not well be improved upon. The greater part of the monograph is taken up with an exhaustive description of the pathological anatomy of the disease and its experimental pathology. The reader will find full accounts of Negri's corpuscles, of rabic nodules, of fibrillar and cellular lesions, and of all the other minute changes in the nervous system consequent on infection; the nature, localisation, and propagation of the virus are considered in their various bearings. Some 200 pages of the book are devoted to the question of treatment by Pasteur's method, the Roumanian method, and a number of others, and interesting and valuable statistics are furnished of the results of treatment.

The monograph will be indispensable to the student of the disease; its authoritative discussions of debatable topics and its methodical and systematic surveys of all the departments of so important a subject are praiseworthy. It is a pleasure to find an excellent index, but although there are many references in the text to the coloured plates, these plates were not to be found in the copy of the book forwarded for review.

Der jetzige Stand der Krebsforschung. Von Professor Dr. GEORG KLEMPERER, Direktor des Instituts für Krebsforschung der Königl. Charité und des Städt. Krankenhauses Moabit. Referat erstattet in der Generalversammlung des Deutschen Zentral Komitees für Krebsforschung am 18. Mai, 1912. Berlin: August Hirschwald. Pp. 74. Price, paper, 2 marks.

THIS lecture, delivered on the twelfth anniversary of the founding of the German Cancer Committee, is a clear—if one-sided—review of much of the experimental work which has been done on cancer during the past ten years. All the facts are recorded and interpreted from the author's standpoint—viz., that cancer has a parasitic etiology. Professor Klemperer, while acknowledging that many chronic forms of irritation are of moment, chooses to view their intervention as providing the means for entrance of the parasite.

An analogy is drawn between cancer and infective diseases in the sense of a continuous poisoning of the system. Epidemics of cancer in men and animals are alluded to as if they were demonstrated to occur, and even the transference of cancer from man to animals is regarded as having been successfully performed. The development of sarcoma during the transplantation of carcinoma is adduced as experimental proof of the views advanced, and the author alleges the development of carcinoma after the inoculation of sarcoma in support of a parasitic etiology. The induction of immunity to the inoculation of cancer is referred to as being due in all probability to antikörper, and therefore called forth by a parasite. Attempts to cure animals of tumours are summarised as having given uncertain results, and the methods devised to attempt the serodiagnosis of new growths as being unreliable, as yet. One original observation by Professor Klemperer refers to the investigations he has conducted with Dr. Emil Fischer in the preparation of selenium compounds which should be non-toxic and yet act upon the tumours of man. An organic compound of selenium which had no action on animal tumours was found to cause temporary diminution in two sarcomata of the maxilla; the substance, however, is stated not to be of therapeutic value.

The review suffers, as a whole, from the fact that the author is surveying the observations and experiments of others from the standpoint of a clinician who firmly believes in the parasitic etiology of cancer, in support of which he brings forward all the old arguments. While losing sight of the wider biological significance of much recent experimentation which is opposed to his views, Professor Klemperer gives too great weight to other experiments which lack all confirmation. It is interesting to learn that the distinguished chemist, Fischer, in common with his colleague, bases his search for a chemical cure for cancer on the parasitic hypothesis, and that they frankly admit the search for a drug which while acting on the parasite will spare the rest of the body.

The Significance of Ancient Religions in Relation to Human Evolution and Brain Development. By E. NOEL REICHARDT, M.D. Lond. London: George Allen and Co. 1912. Pp. 456. Price 12*s.* 6*d.* net.

THERE is a growing tendency in the medical profession for its members to think about and to write upon subjects that are not strictly "scientific"—that is to say, subjects of historical and sociological range rather than physical. This tendency is admirable from two points of view; firstly, as showing that the medical profession is exhibiting a greater interest in its economic environment (an advantage both for itself and for other citizens), and secondly, because the criticisms afforded by members of our own profession upon subjects somewhat alien to them are of value. A recent example of such writing is the book entitled "The Mastery of Life," by Dr. G. T. Wrench, which was reviewed in our issue of July 27th, 1912, p. 238, and the work now before us comes in the same category.

Dr. Reichardt's thesis is as follows: Humanity during the last 8000 years has been undergoing a process of evolution, "a continuous wave of vital energy," propagating itself through a series of smaller wavelets. This process added to the brain a new layer of cells, the Neo-andric layer (p. 143), which, however, during the first half of the evolutionary period was barred from contact with the outside world by the pre-existing mind organ, the palæo-gynic layer. The Neo-andric layer, therefore, "only gave rise in consciousness to subjective presentations in which it revealed itself, its origin, and the necessities of its existence." These subjective presentations were the basis of the religious ideas of oriental paganism. In the second half of the evolutionary period the Neo-andric layer gradually entered into relation with the outside world, and "the first step of this new phase showed itself in the Greeks." "The generic wave," as Dr. Reichardt calls his evolutionary wave, reached its height in the Jewish racial movement wherein the Creator of the Universe was first revealed to mankind; since then the wave has been subsiding through the Greek, the Roman, the Mohammedan, and the Mediæval Catholic racial movements, but the new cells have been entering more and more into relation with the outside world, and "we now stand at the zenith of a later racial movement wherein the tendency towards the reintegration of material civilisation and culture is clearly triumphant." Further, the ancient religions arose out of a continuous progression of mental states which were the necessary results of the development taking place in the upper part of the grey matter (the Neo-andric layer).

Having formulated this theory (if we have followed him rightly) Dr. Reichardt collects facts to fit into it. We cannot say that we agree with all his conclusions, and we must confess to feeling doubtful here and there as to what he means, but the book is of interest, although many passages bring forward views overlaid with matter which has obscured their real meaning. Such are, for instance, the passage on feudalism (p. 50) and on death and life (p. 197). His contention (p. 416 *et seq.*) that in the various forms of mental disturbance are shadowed forth the several "mental states which became predominant in the individual during the Archaic period of human development" certainly fits in with his theory, if it is not essentially new. The book

would be improved by being made more concise and less vague and inconsistent than it is in places—e.g., on p. 353 the author says: "We have now done with the Archaic period." But the previous chapter ends with the coming of Christ, and on p. 41 the Archaic period is put down as lasting 3000 years, having started (p. xiii.) 6000 years before Christ. Again, on p. 10 he ridicules the idea that the success of the Mohammedan movement was due to the promise of a future life of pleasure, while on p. 382 he argues that the promise of an eternal paradise of endless sexual enjoyment was the chief attraction of Mohammedanism. While we cannot accede to Dr. Reichardt's own statement on p. 444, that "the postulate verified in this work in the historical evolution of humanity does embody in one coherent and intelligible scheme the totality of developmental phenomena in all the categories of the living world," yet his book is one to be read.

Diseases of the Genito-urinary Organs and the Kidney. By ROBERT HOLMES GREENE, A.M., M.D.; and HARLOW BROOKS, M.D. Third edition, revised and enlarged, with 339 illustrations. London and Philadelphia: W. B. Saunders Company. 1912. Pp. 639. Price 21*s.* net.

THE authors in the preparation of this, the third, edition have exercised a good deal of care to introduce only that new material which they believe to be of real value. In this country we have not as yet arrived at the stage of recognising special genito-urinary lectures in our universities or special clinics on this subject in our general hospitals, but we do recognise that the subject is one of great importance, as is shown by the fact that no small part of the progress which has been made within recent years has followed upon English lines. Many English students may feel that the information contained in the ordinary text-books of surgery is not all that they require, and therefore there may be a very definite need for a work such as this, in which more detailed information is given. The teaching is sound and well represents present-day practice. The illustrations are numerous and good, and we can safely recommend the work to senior students and practitioners.

Forschungen und Erfahrungen, 1880–1910. Eine Sammlung ausgewählter Arbeiten. Von Professor Dr. Sir FELIX SEMON, K.C.V.O. Berlin: August Hirschwald. 1912. Vol. I., pp. 668; Vol. II., pp. 676. Price, two volumes, 32 marks.

Sir Felix Semon has collected together in two volumes his researches and experiences from 1880 to 1910. Two-thirds of the first volume are given up to the physiology and pathology of the nerve-supply of the larynx. The remainder of the volume contains miscellaneous contributions to diseases of the larynx and the upper air-passages, clinical reports of cases, and biographical notices of Rudolph Virchow, Wilhelm Meyer, Manuel Garcia, and Sir Morell Mackenzie. From the order in which these names are given it will be observed that chronological sequence has not been followed in the arrangement of this collection. In the collating of the scientific papers the failure of such sequence is inevitable. An appendix, however, will be found at the end of the second volume giving in chronological order a list of the medical writings of the author from 1873 to 1912; these number 132, but they do not represent the total output of a prolific writer and speaker. A note at the end of the appendix reminds us that, in addition to these, Sir Felix Semon has been the author of numerous short articles, editorial notices, translations, letters, critiques, and obituary notices contributed to scientific societies, to the medical press, as well as to the public press.

More than half the second volume deals with new growths in the larynx. The first 70 pages discuss the illness, or rather the scientific and ethical aspect of the illness, of the late Emperor Frederick III. of Germany. Then follow five practical articles dealing with the diagnosis and operative treatment of innocent and malignant growths in the larynx. The second part of this volume consists of miscellaneous articles. Amongst these may be mentioned two dealing respectively with acute septic inflammation and pneumococcus invasion of the throat.

The two volumes contain very little new matter. They form, as the subtitle of the book states, a collection of reprints of the author's works, which for the most part have appeared in English and are now collected together, translated, and published in book form for the benefit of his German *confrères* who have not ready access to the various English journals in which they originally appeared. The volumes might have been lightened, and the scientific contributions brought into greater prominence, by jettisoning a good deal of controversial matter which is happily falling out of recollection. Moreover, many of those who took part in the controversies have now passed away. Both volumes are well indexed, which enhances their value as a work of reference, and they contain a good deal of sound matter based upon 30 years of clinical experience.

Trypanosomes et Trypanosomiases. Par A. LAVERAN, Professeur à l'Institut Pasteur, Membre de l'Institut et de l'Académie de Médecine; et F. MESNIL, Professeur à l'Institut Pasteur. Deuxième edition, entièrement refondue. Paris: Masson et Cie. 1912. Pp. 1000, with a coloured plate and 198 illustrations in the text. Price 25 francs.

THE first edition of this great work was published in 1904, but since then there has been an enormous amount of investigation carried on respecting trypanosomes and trypanosomiases, and this has necessitated the preparation of a second edition so as to bring the knowledge up to date. The book when published in 1904 consisted of 418 pages, while the new edition just published extends to 1000, thus more than doubling the size of the work. Much of the matter has been rewritten in the light of present-day information and recent discoveries; and a number of new chapters have been added dealing with the parasites and with the forms of trypanosomiasis which were either altogether unknown or little known in 1904, as, for instance, the South American human trypanosomiasis caused by Schizotrypanum cruzi and the sleeping sickness of Rhodesia, of which Trypanosoma rhodesiense is the parasite and glossina morsitans the transmitter.

The volume is divided into two parts, the first of which (*partie générale*), containing ten chapters, is devoted to a general historical summary of the subject, the geographical distribution of trypanosomes, the technique for their study, their appearance in vertebrate and invertebrate hosts, modes of culture, classification, methods of spread, pathology, treatment, and prophylaxis generally. Part II. (*partie spéciale*), containing 25 chapters, deals with trypanosomes as agents of disease in man and animals, each species being carefully described, and the malady caused by them in each instance being fully discussed, along with the mode of propagation, diagnosis, prognosis, treatment, and prevention. What was given in the first edition as an appendix on tsetse flies is now extended and enlarged into a special chapter entitled "The Invertebrate Transmitters of Trypanosomes," profusely illustrated, in which is set out the natural history of the invertebrate blood suckers and transmitters of trypanosomiases, such information being indispensable for the proper study of these maladies and their prophylaxis.

This volume is the most complete of its kind upon the subject. It will prove of the greatest service to medical

practitioners in the tropics and also to veterinary surgeons. In addition it will be of much assistance generally to microbiologists who may be investigating trypanosomes in their European laboratories; entomologists, too, will find it of interest, since nowadays their work is often intimately associated with that of the pathologists, so many diseases being due to insect transmitters.

LIBRARY TABLE.

The Prognosis and Treatment of Diseases of the Heart. By R. O. MOON, M.A., M.D. Oxon., F.R.C.P. Lond., Physician to the National Hospital for Diseases of the Heart. London: Longmans, Green, and Co. 1912. Pp. 111. Price 3*s.* 6*d.*—Although there is not much that is new to be found in Dr. Moon's little book, the advice given therein is sound and practical. We note with pleasure that he does not necessarily take the pessimistic view adopted by some writers regarding certain maladies of the heart. For instance, in aortic regurgitation he rightly lays stress on the causation of the disease, and points out that the outlook is more favourable when the lesion has been due to endocarditis in early life than when it is due to degenerative changes, the lesion being stationary in the former case and progressive in the latter. So, too, in relation to paroxysmal tachycardia, Dr. Moon states that in general a favourable prognosis may be given. The methods of treatment suggested are those now adopted by the majority of physicians. Dr. Moon lays due stress on the regulation of the patient's daily life, especially in regard to rest and exercise. His directions as to the use of drugs are briefly but clearly given. This volume will be found useful by the practitioner, but the student had better stick to a text-book on general medicine.

Reminiscences of Sir Charles A. Cameron, C.B. By Himself. Illustrated. Dublin: Hodges, Figgis, and Co., Limited; London: Simpkin, Marshall, and Co., Limited. 1913. Pp. 181. Price 3*s.* 6*d.* net.—Those who delight in gossip, mainly of recent times, will find much to interest them in these reminiscences. It is a common saying that Scotsmen have no sense of humour, but Sir Charles Cameron, medical officer of health of Dublin, who, though an Irishman by birth, is needless to say a Scotsman by descent, clearly saw and dwelt with zest on the humorous side of the events that presented themselves to him, and activates these events for his readers. (Perhaps that enzymic function is the real explanation of the saying that humour is infectious.) The work provides us with snapshots of all kinds of interesting persons in all kinds of interesting circumstances. Through his pages pass King Edward VII. and the Duke of Connaught, the Earl and Countess of Aberdeen, Earl Cadogan, the Duke of Abercorn, Sir H. M. Stanley, Mr. Winston Churchill, Lord Blyth and the other members of the firm of W. and A. Gilbey, Lord Roberts, Father Mathew and Father Healy, the Wildes, Charles Kean, Sir Henry Irving, Miss Olga Nethersole, the other Sir Charles Cameron (a former M.P. for Glasgow, whom the author terms his *alter ego*, and relates some amusing instances of the confusion that not infrequently occurred between them), the Queen of Roumania, W. G. Wills (a cousin of Lady Cameron), George Grossmith, and many other notabilities. The photographs, of which there are several, including the Duke of Connaught in his regalia as Grand Master of Knights Templar in Ireland, the Countess of Aberdeen, and, of course, Sir Charles Cameron himself in highland costume, are all very good. The book of reminiscences, a collection of *dujecta membra*, was written in response to much urging at the hands of friends, principally members of the Dublin Corinthian Club, and the author, while not expecting that his reminiscences will prove attractive to the general public, hopes that they will not prove uninteresting to his wide circle of friends and acquaintances. He may feel sure of having achieved his object, but a little careful editing with tactful discretion would not have been a disadvantage to a book whose author is at times singularly innocent of reserve.

The Care of Children. Practical Hints for Mothers and Nurses at Home and Abroad. By ROBERT J. BLACKHAM, D.P.H. Lond., Major R.A.M.C. Third edition. London: The Scientific Press, Limited. Pp. 102. Price 1*s.* 6*d.* net.—This little book continues to maintain its popularity, notwithstanding that there is no longer a scarcity of books on child culture. It is addressed essentially to the mother and the nurse, and the author has brought to bear not only a considerable knowledge of the practitioner in family ailments, but the sanitary point of view also of the diplomate in public health. While it is quite well suited for use in this country, the present edition has been prepared in India, and brought up to date, particularly for those whose lot takes them away from the mother country into colonial and imperial dependencies.

Outlines of Medical Jurisprudence and Treatment of Poisoning. By RAMES CHANDRA RAY. Second edition, rewritten. Calcutta: The Hare Pharmacy. 1912. Pp. 453. Price 4 rupees.—We expressed a good opinion of this work on the occasion of reviewing the first edition, which was published in 1910, and we are not surprised that a demand has arisen for a further issue. The author has used well an opportunity to remodel the book and extend its scope. He has a remarkable faculty for compression. The chapters cover a great deal of ground, the paragraphs are concise, and the information, both forensic and toxicological, is sound. This book is much appreciated by students and practitioners in India, and we can cordially recommend it to readers in this country; it is full of good practical instruction.

Die Morphologie der Missbildungen des Menschen und der Tiere. Herausgegeben von Dr. ERNST SCHWALBE. III. Teil, IX. Lieferung, 1 Abteilung. 4 Kapitel. *Die Missbildungen der Kopfes.* Mit 73 Abbildungen im Text. Jena: G. Fischer. 1913. Pp. 113–204. Price 3.20 marks.—This is an excellent compilation on the deformities of the head, including malformations on the lips, gums and teeth, eyes and nose. The illustrations are both numerous and well printed. The malformations are explained on the basis of the facts of embryology and development. A most excellent quarry for reference to teratologists.

Text-book of Anatomy and Physiology for Nurses. By ELIZABETH R. BUNDY, M.D., Member of the Medical Staff of the Women's Hospital of Philadelphia, &c. Second edition, revised and enlarged. With a glossary and 215 illustrations, 42 of which are printed in colours. London: J. and A. Churchill. 1912. Pp. 335. Price 7*s.* 6*d.* net.—The present edition marks a considerable expansion in the scope of this work, and the expansion has taken place in the right direction, inasmuch as some of the simple facts of physiology are included, and lessons on the relation of structure to function are drawn where possible. The book is clear and simple, and obviously well suited as a handbook for nurses. Leading text-books have been followed for description and illustration, and a general high level of accuracy has been maintained. Some generalisations, such as the statement "that all the functions of the body depend in the beginning upon muscular action" (p. 114), must not be taken too literally. Some statements need revision: such a one is that concerning the testicle, which is said to be surrounded "by a double sheath of peritoneum" (p. 291); and some few misprints, as "vestibute" for "vestibule" (p. 289), need correction. A glossary is added, and this may possibly prove

useful to nurses, but it seems strange that one who has tried to look into the meanings of anatomical terms should assert that the risorius is the laughing muscle (p. 84), for that is to mislead the student. The illustrations are mostly taken from the works of well-known authors; but it is a matter for real regret that the beautiful drawings that adorned Sappey's "Anatomie Descriptive," and which are freely reproduced here, are ascribed sometimes to Gould's Dictionary and sometimes to Holden, and in at any rate one case (Fig. 104) remain altogether unacknowledged.

English Cookery Books to the Year 1850. By ARNOLD WHITAKER OXFORD, M.A., M.D. Oxon. Oxford University Press (Henry Frowde). 1913. Pp. 192. Price 5*s.* net.—The bibliography of the culinary and allied arts is well covered by Dr. Oxford in this book. The list begins with the "Boke of Cokery," described as "a noble boke of festes royalle and Cokery a boke for a pryncis housholde or any other estates, Emprynted without temple barre by Richard Pynson in the yere of our lorde MD." The list proceeds in chronological order, ending with "Common Sense for Housemaids, by a lady," published by J. Hatchard and Son, 1850. The sixteenth century supplies 25 titles, the seventeenth century 68, the eighteenth 112, and the first half of the nineteenth 123. Many of the books cover other fields of domestic economy besides cookery, and not a few are more or less medical in character, for the good housewife did not neglect her "simples" or the recording of prescriptions which, whether by their actual potency or by the influence of suggestion, were known to have presumably rendered service in sickness. Neither did the physician on his part neglect the aid that may be rendered to the preservation and restoration to health by "Kitchin Physick," to use the title of a book published in 1676. Among the medical fingers that appear in the cookery pie are to be found those of a one-time bishop, Andrewe Boorde (1562), Leonardo Phioravante Bolognese (Fioravante, 1582), Tobias Venner (1620), James Hart (1633), Thomas Muffett (1655), Sir Theodore Mayerne, physician to Charles I. (1658), Denys Papin, of chemical fame (1681), Louis Lemery (1704), A. Hunter, F.R.S. (1705), and William Kitchiner (1817). The book is full of interest to the book lover and the antiquary.

MISCELLANEOUS VOLUMES.

A FEW papers on Socio-economic subjects are of interest and may be considered in association.

Mr. ROBERT J. PARR, Director of the National Society for the Prevention of Cruelty to Children, in *Maimed or Whole? A Statement Relating to Operations in Children* (London: Published by the Society. Pp. 55. Price 3*d.* net), aims to explain the attitude and action of the National Society for the Prevention of Cruelty to Children in procuring operations upon children where there is a reasonable expectation that surgical interference will result in their relief, instead of limiting such procurement to persuasion and the provision of facilities. The neglect to provide medical aid for a child may be punished as cruelty on the part of its parents or guardians, upon prosecution, and an order may be granted depriving the person, on conviction, of the custody of the child, and handing the child over to a relation or other fit person. Under the sections of the law thus summarised, the society has brought about the performance of surgical operations upon children who have been benefited thereby, but in one particular instance, a case of cleft palate, it has had to desist from its efforts on the child's behalf. Lord Hugh Cecil, a prominent and important member of the society, and therefore, no doubt, influencing and expressing the views of others, took a view strongly antagonistic to that of the executive committee in the case of cleft palate referred to, and by threat and argument contained in a series of letters insists that the society should confine itself to the repression and punishment of cruelty in the popular sense of the term. He would have it abandon altogether its recourse to the penal law as contained in the Children's Act, 1908, in order to procure the submission of children to surgical operations (for the society in such cases disclaims the idea of seeking the punishment of the reluctant or negligent parent as an essential object). The full publication of the correspondence between the director of the society and Lord Hugh Cecil will leave its members and the public to decide which is in the right; and certainly Lord Hugh Cecil cannot complain that he has not had ample opportunity for the expounding of his views. They do not commend themselves to us, but the whole question may be commended to lawyers and medical practitioners for their consideration, and they are advised to read Mr. Parr's small and inexpensive pamphlet before formulating their conclusions. Meanwhile, the National Society for the Prevention of Cruelty to Children is to be congratulated upon the splendid record of its work in procuring the relief of children from physical pain and disablement.

In the *Conservation of Womanhood and Childhood* (New York and London: Funk and Wagnalls Co. 1912. Pp. 84. Price 3*s.*) Mr. ROOSEVELT makes a plea for the right of the community to limit the hours of work for women and children, to fix the closing hours, to pass mandatory laws in connexion with safety appliances, and the right to say they shall not labour under conditions ruinous to health, or so many hours a day, or days a week as to make it impossible that their lives shall be stunted and warped by excessive toil and unhealthy conditions. These are matters concerning which in this country no pleading is necessary, for they are accomplished facts. In America, however, legislation of this kind, that inevitably runs up against vested interests, is hampered and sometimes prevented in the different autonomous states on the ground that it conflicts with some principle embodied in the written constitution of the United States. We cannot help thinking that Mr. Roosevelt makes out his case when, after citing the opinions of judge after judge to the effect that the courts should declare any particular law unconstitutional only when there can be no doubt of it in the minds of men of ordinary intelligence and good faith, he contends that this condition is not fulfilled in cases where the judges are almost evenly divided in opinion, or where the supreme courts of different States take conflicting views.

The Indian Guild of Science and Technology, whose patrons are the Gaekwar of Baroda, Sir Henry Roscoe, F.R.S., Geh. Rath. Prof. Dr. O. N. Witt, Sir William Ramsay, F.R.S., and Dr. Profulla Chandra Ray, and whose President is Professor Arthur Smithells, F.R.S., has for its objects the affording of facilities to Indian students for the study of scientific and technological subjects in the West. It publishes a guild magazine, and aims at the establishment of a permanent head office in India, with a corresponding foreign office in England, to act as an information and employment bureau, and to remove the disabilities from the path of native scientific and industrial students at home and abroad. It proposes to institute prizes for essays on public health and industrial problems in India, to endow research and technical training, and to publish technical books in the different vernacular languages of India. The *Year Book* of the Guild for 1912 contains besides its report and the official information a series of papers on matters relating to coal-mining, foundry practice, engineering and other industries, chemistry, and education; but the papers of most interest to medical men will be the Cancer Problem in India, by K. Gopinath Pandalai, I.M.S., and a very interesting comparative essay on Ancient Hindu Medicine, by Dr. John D. Comrie,

lecturer on the History of Medicine at the University of Edinburgh. Dr. Comrie deals especially with the second of four distinct periods into which ancient Hindu medicine may be divided—viz., the Brahministic Period, and discusses Vedic Medicine, Hindu Practitioners and Medicine, the Relation of Hindu Medicine to that of Greece, Indian Materia Medica and Treatment, and the Theoretic Basis of Indian Medicine. A useful bibliography is appended to his paper.

There is not a little information of medical interest in *Napoleon's Campaign in Russia, Anno. 1812, Medico-Historical*, by Dr. A. ROSE (published by the Author, 173, Lexington-avenue, New York. 1913. Pp. 212). It aims to give a picture from the medical point of view of the sufferings and privations, the illnesses, mental and physical, that prevailed in that fearful retreat from Moscow, in which disappeared the majority of the 600,000 of Napoleon's army that had crossed the Niemen in June, 1812, of whom all that appears in the regimental records are the significant words, "Disappeared during the Retreat." Dr. Rose has made use of available historical material from the records of survivors.

JOURNALS AND MAGAZINES.

Journal of Physiology. Edited by J. N. LANGLEY, F.R.S. Vol. XLV. No. 6. Cambridge University Press. Feb. 5th, 1913. Pp. 429–497. Price 5*s.*—F. Cook and M. S. Pembrey contribute Observations on the Effects of Muscular Exercise on Man, along with observations on respiration, pulse, and temperature of healthy men before and after exercise. The object was to investigate muscular dyspnœa, "second mind," and training. The observations here made are on medical students at Guy's Hospital. During rest the mean composition of alveolar air was 5·57 vols. p.c. CO_2 and 14·89 oxygen. The respiratory quotient (R.Q.) varied from 1·03 to 0·73 with a mean of 0·90. Directly after muscular exercise the CO_2 was 6·52 vols. p.c. and oxygen 12·80. R.Q. 1·00. During muscular dyspnœa the R.Q. affords no definite indication of the metabolism as vigorous ventilation of the lungs washes out CO_2. The administration of oxygen is of value only when the conditions are pathological. The difference in the pulse-rate during rest ranged from 45 to 90 per minute. The pulse of trained men has a slower rate at rest, a wider range in reference to muscular work and a more rapid recovery after exercise. Directly after exercise the pulse-rate may be 180 per minute. "Second wind" appears to be an adjustment of the respiratory and circulatory systems to the demands of the muscles for an adequate supply of blood and CO_2 is the chief factor in effecting the accommodation. I. Matsuo contributes a paper on the Secretion of Pancreatic Juice. In the main he confirms the views expressed by Bayliss and Starling regarding secretin, and gives no support to the views of Popielski in his identification of secretin with "vaso-dilation." P. M. Nikiforowsky made experiments on Depressor Nerve Fibres in the Vagus of the Frog, and he concludes that the vagus contains depressor fibres, though their development appears to be less than it is in the mammal. H. Maclean and Ida Smedley have a short paper on Utilisation of Different Sugars by the Normal Heart. In a further paper the same investigators deal very shortly with the Behaviour of the Diabetic Heart towards Sugar. They find that the normal power to consume sugar is absent or largely diminished in the heart of the depancreatised dog, and there is some evidence to show that this power can sometimes be restored by the addition of pancreatic extract. These results in general confirm those of Knowlton and Starling. D. J. Barry made experiments on rabbits and cats on "afferent impressions from the respiratory mechanism," the movements of the diaphragm being recorded by Head's method. Details of the experiments are given. During ordinary respiration inspiratory impulses arising in the thoracic walls travel by somatic nerves to the cord and reach the bulb. In addition, inspiratory impulses of visceral origin probably pass *viâ* the stellate ganglion. The afferent impulses conveyed by the vagus are chiefly inhibitory. The Oxygen Capacity of the Blood is considered in a short paper by T. H. Burn, and along with J. Barcroft he contributes another paper on the Constant of the Differential Blood Gas Apparatus, and the Specific Oxygen Capacity of Blood. Casimir Funk continues his work on Beri-beri and the Action of Certain Purine—and Pyrimidine—Derivatives. Certain of these have a very marked effect on pigeons suffering from polyneuritis; a relationship between chemical structure and the action could not be established. The action of allantoin suggests that pigeons are not able to convert uric acid into allantoin.

Journal of Pathology and Bacteriology. (Official Organ of the Pathological Society of Great Britain and Ireland.) Vol. XVII., No. 3. Published from the Department of Pathology, University of Cambridge. Price 7*s.* 6*d.* Yearly subscription, £1 1*s.*—Dr. Harold W. Wiltshire, of London, in an Investigation into the Cause of Rouleaux Formation by Human Red Blood Corpuscles, points out that the power of forming rouleaux is possessed by certain colloids such as gum, serum, and pathological fluids. In the case of the latter slight dilution abolishes this power, and neither serum nor corpuscles, when kept, promote rouleaux formation; under similar conditions pathological fluids do not lose their power. The body in the serum which is responsible for rouleaux formation is thermostable, but red corpuscles lose the power when subjected to low degrees of heat. CO_2 and hydrogen destroy the power of formation in red cells, although the conversion of oxyhæmoglobin into CO-hæmoglobin has no such influence, nor is the power affected by simple alterations of acidity and alkalinity in the surrounding medium. The writer discusses the possible explanations of the phenomenon, and concludes that the process is distinct from hæmagglutination and is caused by surface tension.—Dr. J. O. Wakelin Barratt, of Liverpool, writes on Fibrinæmia. When a solution of rabbits' hæmoglobin is injected into the veins of a rabbit death ensues, with symptoms due to the presence of substances derived from the stromata of the red blood cells. The writer finds that rabbits' red cells, on laking, yield thrombokinase. Intravenous injection of thrombin or thrombokinase produces separation of fibrin in the circulating blood, and clots are produced either in the heart and great vessels or in the smaller blood-vessels and capillaries, both occurring if the separation of the fibrin is rapid; if slow, the latter alone. The mechanical obstruction of the circulation so produced is partly or wholly the cause of the symptoms seen on injecting solution of hæmoglobin, as the fluid is otherwise non-toxic.—Dr. A. Stanley Griffith, of Cambridge, in a contribution on Human Tubercle Bacilli in the Milk of a Vaccinated Cow, demonstrates that in a cow inoculated with living human tubercle bacilli as a protection against bovine tuberculosis, tubercle bacilli of the human type could be found in pus obtained from the developed udder up to the 529th day after the inoculation, when the animal was killed. In another case a heifer was inoculated four days after birth. She calved when she was 2 years and 4 months old, and human tubercle bacilli were found in milk obtained on the day of calving and also 40 days afterwards, when the animal was destroyed. The writer draws attention to the danger of thus inoculating cows which are destined for dairy purposes.—Dr. G. W. Nicholson, of London, describes a Transplantable Carcinoma of the Kidney of a White Rat, and illustrates a spheroidal-celled carcinoma. It occurred spontaneously in the kidney. Though many parts of the tumour showed

a structure resembling that of the suprarenal cortex, the author concludes that this tumour, like most of the human hypernephromata, arises from the epithelium of the renal tubules. On inoculation into other rats, tumours developed in from 20 per cent. to 100 per cent. of the animals, but many tumours underwent spontaneous absorption, and only 10 per cent. to 60 per cent. were permanent.—Dr. A. E. Boycott and Dr. C. Price-Jones, of London, in a paper on Experimental Trypanosome Anæmia, show that injection of Trypanosoma brucei produced well-marked and fatal anæmia in rabbits, accompanied by a loss of hæmoglobin, but an increase in blood volume. This loss of hæmoglobin is due to destruction of the red cells by phagocytosis in the lymphatic glands, the iron of the destroyed hæmoglobin being stored in the liver and spleen. The stimulus to regeneration of red cells is inadequate and the response of the marrow is defective, with the result that the anæmia is persistent.—Dr. Myer Coplans, of Leeds, in a long article on Agglutination and Sedimentation, their Bearing on Water Storage, discusses the physical factors concerned in agglutination, both specific and non-specific, and also the laws governing sedimentation, whether produced slowly by the action of gravity in reservoirs or more rapidly by the use of the centrifuge. From the results of his own experiments on the agglutination and sedimentation of bacteria he criticises the conclusions drawn by Houston and others as to the practical value of storage for the purification of water. This number contains a record of the proceedings of the January meeting of the Pathological Society of Great Britain and Ireland.

Reports and Analytical Records

FROM

THE LANCET LABORATORY.

VESALVINE S.

(W. MARTINDALE, 10, NEW CAVENDISH-STREET, LONDON, W.)

VESALVINE S is an interesting white crystalline compound of salicylic acid and hexamethylenetetramine. The statement that it contains 50 per cent. each of the base and of the acid was confirmed by our analysis. As is well known, hexamethylenetetramine has been used as a diuretic and solvent of uric acid and it has also been found to relieve cystitis. It readily decomposes, giving formaldehyde, especially in the presence of an acid. It is, in fact, a combination of ammonia and formaldehyde. One important point in regard to the salicylic compound is that it is extremely soluble in water, much more so than the base and much more so than salicylic acid. It is suggested for use as a urinary antiseptic, the salt splitting up and liberating hexamethylenetetramine and consequently formaldehyde, while simultaneously salicylic acid will be formed which is calculated to aid the action of the formaldehyde. The range of dose is from 5 to 15 grains and the drug may be obtained in tablet or cachet form.

AMPOULES PITUITARY LIQUID.

ARMOUR AND CO., LIMITED, ATLANTIC HOUSE, HOLBORN VIADUCT, LONDON, E.C.)

Fine laboratory products of the above company are well known, and more particularly those which are employed in serum-therapy. We have received specimens of pituitary liquid in ampoules, each containing 1 c.c. The fluid is perfectly bright and colourless. Each cubic centimetre is stated to represent 0·2 gramme of the fresh posterior lobe of the pituitary body of the ox. The solution is sterilised and is prepared for hypodermic injection. Its action is well known, amongst other things, in producing contraction of the uterus, rise of blood pressure, and diuresis.

WINE VINEGAR.

(ROMANO'S LIMITED, 399, STRAND, LONDON, W.C.)

This is an excellent specimen of wine vinegar, a condiment which deserves to be more frequently used than is generally the case. Vinegar, of course, was originally sour wine, but presumably malt vinegar has replaced it because it is more economical. Wine vinegar, however, as represented in this sample is distinguished from malt vinegar by its elegance of flavour, which renders it peculiarly suitable in the making of salads. The genuineness of this wine vinegar is attested by the following results of analysis which we have obtained: acetic acid, 3·46 per cent.; tartaric acid, 0·54 per cent.; alcohol by volume, 7·32 per cent.; extractives, 2·42 per cent.; sugar, 1·04 per cent.; and mineral matter, 0·37 per cent. As will be seen, it presents the composition of a wine which has been partially acetified by an oxidising process. It is free from the common contaminations of much vinegar, and contains no objectionable antiseptics. It possesses a delicacy of flavour and aroma which render it particularly pleasing to the refined palate.

HYPOTUBES.

(EVANS SONS LESCHER AND WEBB, 56, HANOVER-STREET, LIVERPOOL.)

The hypotube should be a considerable convenience in the practice of hypodermic medication, since it presents everything ready for the purpose, including a metal carrier, needle, and a small glass tube containing spirit, into which they can be returned after use and there kept sterilised. The measured injection is contained in a collapsible tube of pure tin having a closed nozzle of soft metal. The nozzle is moulded to fit into the base of the mount of the hypodermic needle. A metal "pricker" is provided by which the soft metal nozzle can be pierced. The needle is then attached, and the contents of the "hypotube" discharged through it by gradual pressure with the finger and thumb. All parts are sterilised, and can readily be kept sterilised. It will be seen that this method dispenses with certain of the inconveniences attached to methods hitherto in use. The apparatus is contained in a quite small portable case.

PHOSPHOCOSE.

(THE BAYER CO., LIMITED, 19, ST. DUNSTAN'S-HILL, LONDON, E.C.)

According to our analysis this preparation is correctly described. It contains proteoses, chiefly albumose, which is the important constituent of somatose. Combined with the somatose is sodium glycerophosphate, the whole being preserved in a pleasant syrup. Analysis gave the following results: moisture, 53·91 per cent.; mineral matter, 3·47 per cent.; proteins (according to total nitrogen), 14·12 per cent.; and sugar, 28·50 per cent. Practically the whole of the nitrogenous matter is thrown out by bromine. The mineral matter was found to contain 1·47 per cent. of phosphoric acid, which approximates to an equivalent of 5·6 per cent. of sodium glycerophosphate. The formula is obviously a useful one in several directions. It may be used for the treatment of chronic nervous disorders and in all cases where a tonic and restorative is indicated. The preparation is sterilised and is pleasantly flavoured.

ROYAL INSTITUTION.—On Tuesday next, April 1st, at 3 o'clock, Dr. Arthur Smith Woodward will begin a course of two lectures at the Royal Institution on Recent Discoveries of Early Man, and on Thursday, April 3rd, Dr. E. Frankland Armstrong will begin a course of two lectures on (1) the Bridge into Life and (2) Colour in Flowers. The Friday evening discourse on April 4th will be delivered by Dr. James J. Dobbie on the Spectroscope in Organic Chemistry, and on April 11th by Mr. Charles J. P. Cave on the Winds in the Free Air.

THE LANCET.

LONDON: SATURDAY, MARCH 29, 1913.

International Quarantine and the Panama Canal.

AN opportunity for the science of public health to manifest itself as the force which, while eliminating the dangers of commercial intercourse, can multiply enormously its benefits, may be at hand with the opening of the Panama Canal. The position is particularly gratifying to British sanitarians, as they have been the prime movers of that reasonable view of quarantine which refused to regard measures against the importation of disease as merely means of self-defence. To warn off the healthy as well as the sick because they have had the misfortune to come into contact with one another, and to condemn the former to remain associated with the latter until all chance of human salvage was irretrievably lost, was first seen in this country to be a stupid and cruel routine, and we substituted for it a form of reasonable quarantine which accepted the humane charge of sick and well alike. By isolating the sick and the suspects, and separating forthwith from further association with sources of infection those who have hitherto escaped its dangers, keeping them under observation until such time as the absence of latent mischief is made clear, the sick can be humanely cared for and given the best possible chance for their lives, while the well are not only removed at the earliest possible moment from danger, but are subjected also to the minimum of personal inconvenience. And at the same time a disastrous toll on commercial relations is obviated, while all this can be effected with the minimum of danger to the community that receives the unfortunates. These principles, so well advocated at the end of last century by Sir RICHARD THORNE THORNE, then principal medical officer of the Local Government Board, and a medical scientist of whom the British medical profession may well be proud, were set forth by Dr. WILLIAM COLLINGRIDGE in the Milroy lectures for 1897,[1] and the truth as well as the universal applicability of the doctrines were made perfectly clear.

But the abolition of a rigorous quarantine of the old-fashioned sort entails as a corollary a prompt and thorough application of a quarantine of the modern sort—that of observation. This would consist ideally of an impartial central bureau for the international notification of the prevalence of cholera, yellow fever, or plague, and perhaps small-pox, in any part of the civilised world, the immediate isolation of cases of disease, and the removal of all unnecessary restriction on the free movement of healthy persons and of non-infected articles of commerce. Recent discoveries as to the causation of many of these diseases have rendered it practicable now to proceed with greater scientific accuracy towards the attainment of this last result than was possible previously, and enormous responsibility is about to fall on the shoulders of American sanitarians. The opening of the Panama Canal would undoubtedly vastly increase, under a careless administration, the facilities for the extension of the three pestilential diseases which have in the past been the curse of international maritime commerce. But it is gratifying to learn from the statesmanlike views expressed in a communication from Dr. JOSEPH J. O'CONNELL, health officer of the Port of New York,[2] which elicited some valuable comments from several of the most prominent authorities in this country, that there is every probability that the Government of the United States, under whose administrative control the Canal will necessarily be, will seize with resolution the opportunity thus offered to convert what might be a danger into a signal source of security for the world. We can confidently count on this from the United States Government, which, as Dr. E. W. HOPE, port medical officer for Liverpool, pointed out in the course of the correspondence in question, through its admirable Marine Hospital Service—now the U.S. Public Health Service—has for years laid port sanitary authorities under an obligation to it by the issue of its *Weekly Bulletin*. With the opening of the Canal it is reasonable to predict that by far the larger proportion of the commerce from the regions that have always been the birthplace of these diseases will pass through it, either eastward or westward, and, as Dr. O'CONNELL suggests, the physical conditions of the Canal are such as to make it almost ideal for the establishment of a preventive and intelligence service for the world at large. At either end of the Canal can be established boarding stations for vessels entering the Canal, while the 12 hours of transit through it can be utilised in investigation, disinfection, and necessary isolation. The difficulty in regard to disinfection in transit, which has been referred to by Mr. W. F. DEARDEN, port medical officer of Manchester, is not likely to prove a serious obstacle. It needs recognition, however, that ingenious minds may grapple with and overcome it. At the Colon (Atlantic) end a reception hospital for the sick and suspects should be established, while at the Panama (Pacific) end are two islands admirably adapted as sites for detention camps and contagious disease hospitals. Thus the facilities for removal and isolation of the sick, and for securing the continued safety of those hitherto unaffected without subjecting them to serious, and possibly unnecessarily cruel, detention, or exposing those among whom they may go to danger, are very obvious. But of as great or even greater importance can be the value of the Canal to sanitary service as an international sanitary intelligence bureau, whereby port medical officers all over the world can be apprised of the sanitary condition of those ships bound for their respective harbours. Dr. O'CONNELL pointed out in his letter that the certainty of supervision and the possibility of delay would indirectly stimulate sanitary activity upon the part of steamship owners at points of departure, and it would even extend a like compelling influence to those ports whose insanitary conditions have up to now been an ever present danger to the

[1] THE LANCET, March 13th, 20th, and 27th, 1897.

[2] THE LANCET, March 1st (p. 638) and March 8th (p. 715) 1913.

world. Dr. R. E. LAUDER, port medical officer of Southampton, and Dr. W. ROBERTSON, the medical officer of health of Leith, reinforced in their letters the arguments in this direction. Dr. LAUDER showed that the representations of practically all the South American Republics at last year's International Sanitary Conference at Paris indicated that these communities were already awakening to their responsibilities. And that British ports may gain by the stimulus afforded by the creation of port sanitary authorities where they do not now exist was shrewdly suggested by Dr. ROBERTSON.

The right of international sanitation to a position of strategic control in the Panama Canal has been earned by the fact that to sanitary ministration, and to it alone, is due the very existence of the Canal. But for the brilliant work under Colonel C. GORGAS, the chief sanitary officer, the American attempt to link the oceans by a waterway would have ended, as previous attempts ended, in a calamitous death roll, and the abandonment of the enterprise. It is sufficient in proof of this to point out that whereas out of an average yearly working force of not more than 10,200, the French lost in nine years 22,189 men, a death-rate of 240 per 1000, in approximately the same period of time under American construction, out of an average force of 33,000, the losses by death were under 4000, the death-rate from all causes showing a continual reduction from 49·94 per 1000 at the beginning of the period to 21·18 per 1000 for 1910. Later figures by Dr. J. EWING MEARS, given in "The Triumph of American Medicine in the Construction of the Panama Canal," show that the Canal Zone death-rate had been reduced in 1911 from a former 70 per cent. of all white folk who went there to under 1 per cent. Such an achievement must surely establish for sanitary science its title to watch over and control, in the interests of civilisation, the maritime traffic whereby the pestilential diseases may be largely spread, a traffic which will be increased a thousandfold with the opening of the Panama Canal.

The Relation Between Galenical Preparations and their Active Principles.

AN important paper from the point of view of medical practitioners was communicated to the March evening meeting in London of the Pharmaceutical Society, in which the author, Mr. H. A. D. JOWETT, D.Sc., discussed the question of the advisability of replacing galenical preparations with their active principles. He adduced evidence to show that while the sole use of active principles, either singly or in combination, is the ideal state of administration of remedies, it is at the present time in the majority of cases impracticable. In spite of the enormous amount of attention which has been given, especially in the last ten years, to the subject of standardisation, there exists very little actual knowledge as to whether the therapeutic effect of a solution of the active principles of a drug is equal to that of a galenical preparation standardised to contain the same amount of active principles. There are cases, however, in which our knowledge is sufficient to warrant the statement that the galenical preparation can be replaced adequately and advantageously by the active principle or combination of principles. For instance, the preparations of jaborandi are difficult to assay since the percentage of total alkaloid is an unreliable guide to their activity owing to the differing activities of pilocarpine and isopilocarpine, and the determination of the pilocarpine in the total alkaloid is a matter of considerable difficulty; it would therefore appear advisable and preferable to use pilocarpine and its salts in medicine and to abandon the use of the galenical preparations.

Another case where the preparation may be replaced by the alkaloid or its salts is that of physostigma; although eserine is somewhat unstable, there are several salts which are stable and very suitable for use in pharmacy. Again, the case for the use of the pure alkaloid cocaine in preference to that of the galenical preparations of coca is strong, and ergot is in the same category. All the known physiological effects of this drug can be explained by the presence of certain bases, and the time has arrived for the medical profession to determine by experience what combination of these bases is necessary for the effect they desire. Another class comprises drugs from which the active principles have been isolated and investigated, but about which there is a doubt whether these principles represent the full activity of the galenical preparations. The most striking example of this class is opium. It seems to be universally admitted that a solution of morphine has not the same therapeutic efficiency as laudanum of the same morphine content, and it has yet to be decided to what the efficiency of the laudanum is due; and although it is satisfactory to note that a determined attack is being made on this problem, it is not likely that laudanum will be replaced for many years to come. Cinchona presents some similarities to opium, inasmuch as the use of its chief alkaloid, quinine, has increased of late years enormously, but the use of the galenical preparations has persisted side by side. Dr. JOWETT is of opinion, however, that it might be possible to delete cinchona preparations from medicine and use only the salts of quinine, and he expresses the hope that some therapeutic trials on this point will be made and the matter settled, because there are still a few physicians who believe that preparations of cinchona bark have virtues not possessed by quinine, and this belief has not been experimentally refuted. Similarly in the case of the solanaceous group there is a number of drugs in which the same active principles occur, but in spite of this the use of galenical preparations is still continued. The three most important of these drugs are belladonna, henbane, and stramonium, and what is needed is more accurate and extended information regarding the therapeutic and pharmacological action of the pure alkaloids and their stereoisomerides and of different combinations of the same; when this has been accomplished the use of the different galenical preparations can probably be abandoned as unnecessary.

Of drugs whose active principles are modified in their physical properties by physiologically inert substances which occur in the galenical preparations the best example is nux vomica. There is no dispute as to the nature of the active principle, and not only is the full physiological effect produced by strychnine, but the presence

of the accompanying alkaloid brucine has been stated to be actually undesirable. Solution of strychnine hydrochloride is supposed to have disadvantages compared with tincture of nux vomica, the chief being the danger of precipitation of the strychnine when dispensed with certain drugs, and it is therefore safer to prescribe the tincture in those cases where there is a possibility of the separation of the alkaloid. Another drug in this class is digitalis. On the supposition that digitoxin and gitalin are extremely potent and that the other glucosides are less active, and with the information that digitoxin is insoluble in water, it would be expected that a tincture of alcoholic extract would contain the greatest proportion of these active principles, and therefore be most efficient therapeutically. On the other hand, we should not expect an aqueous infusion to be as active, since this could only contain a small portion of digitoxin. Yet the contrary is the case, for the infusion, according to the latest researches, is the most active galenical preparation, and digitalis affords a particularly difficult problem. Dr. JOWETT dealt further with drugs where the active principles, if any, that have been isolated in no way represent the full physiological activity of the drug, and the galenical preparations of which cannot be standardised either chemically or physiologically. As the chief example he referred to drugs having a purgative action—e.g., rhubarb, senna, cascara, aloes, and podophyllin. Our knowledge of the chemistry of vegetable purgatives as a class is very incomplete and unsatisfactory, and with the exception of aloin, very little progress has been made in the direction of replacing the galenical preparations with the active principles. Cannabis indica is another drug which affords an excellent example of a potent and valuable drug long used in medicine, which up to the present has refused to yield up its secrets to the investigator. It is obvious that much investigation remains to be carried out before galenical preparations can be entirely replaced by active principles, and the work should be carried on by pharmacologists, pharmaceutical chemists, and clinicians working in unison. Dr. JOWETT'S paper conveys this valuable message.

Joseph Clover (1825-1882), Surgeon and Anæsthetist.

THE eulogy of JOSEPH CLOVER pronounced by Mr. BUCKSTON BROWNE before the Section of Anæsthetics of the Royal Society of Medicine, and published in THE LANCET last week, tells us what CLOVER'S inventive genius has done for surgery, while the encomium passed upon him by Dr. DUDLEY BUXTON at the same meeting enforces the debt due to CLOVER for his work as an anæsthetist. We make no excuse for going over some of this ground again, for CLOVER left the impress of his genius upon many avenues of scientific advance, and has not received his due public acknowledgment. During his stay at University College, London, and University College Hospital he was amidst the inception of great happenings. With LISTER as a fellow student, with the advent of anæsthesia, and with the inspiration of such men as LISTON and SYME, a keen neophyte like CLOVER might well "dream dreams and see visions." We do not know whether either JOSEPH LISTER or JOSEPH CLOVER was present in 1846 when LISTON performed his first surgical operation upon a patient under ether. So great an occasion could hardly have been without an impelling force for CLOVER, who was always eager to see whatever was new in order that he might, if possible, improve upon it. We know that he, like LISTER, was one of the most promising and prominent students of his time, and but for the frequent breaks in his studies due to illness he would have won in his early career honours as well deserved as those which fell to his lot in after life. Unlike LISTER, when CLOVER, who had served SYME as house surgeon, was asked to migrate northward with his chief, he elected to stay behind, clinging to his old school, which thus reaped the honour of association with his work.

Early in his career CLOVER became interested in anæsthetics. It is difficult to-day, when we are familiar with a wide range of anæsthetics and a multitude of more or less exact methods, to realise how very primitive was the armamentarium of the anæsthetist and how limited the scope of his knowledge in the decades following the introduction of ether (1846) and of chloroform (1847) into this country. The towel, or "even the student's woollen glove," served for a means of giving chloroform, while ether, if used at all, was vaporised in a glass vessel containing small sponges soaked in the anæsthetic, and the vapour was drawn by the patient through a tube held between his teeth, the distal end being connected with the container. Later the leather masks of MURRAY and RENDLE replaced the methods of SQUIRE, of PROTHEROE SMITH, and others; or a folded towel soaked in ether and surrounded by an air-tight covering was adopted. SNOW'S inhaler and his teaching were before the world, but appear to have gained but a meagre adherence from the ruck of the profession. At length, however, the increasing death-rate from chloroform, the narcotic which through the strong advocacy of SIMPSON had become the dominating anæsthetic, gave pause to thoughtful men. The Royal Medical and Chirurgical Society appointed a committee to investigate the whole question of anæsthesia, which had by this time become, in fact, the settlement of the rival claims of ether and chloroform. Be it remembered, that although nitrous oxide was employed as an anæsthetic in 1844, its use was not demonstrated in London until about 1866. The committee was composed in the main of distinguished surgeons, although eminent physicians, such as Dr. SIBLEY and Dr. GEORGE HARLEY, the suggester of the A.C.E. and C.E. mixtures, contributed to the work. CLOVER, strangely enough, was not actually a member of it, although there is strong presumptive evidence that his head and hand guided alike its deliberations, and the carrying out of the numerous experiments which supplied the material embodied in a valuable report. This was issued in 1864. Henceforward we find CLOVER as an anæsthetist, speaking and writing, although firmly yet always modestly, as an authority upon the methods of giving anæsthetics. The invention of his two ether inhalers at once replaced that anæsthetic into its original pre-eminence as a safe and generally satisfactory agent, while his method of using nitrous oxide with ether marked an epoch in the technique of his craft. Again imbued with

the necessity of controlling the strength of the vapour of chloroform, if a uniform and reasonably safe administration of that drug was to be obtained, CLOVER devised his bag inhaler. Its alarming proportions withheld from it a wide suffrage, but the invention marked a great advance in production of scientific anæsthesia. Not only in design was CLOVER an adept, but his scanty writings—and many of them appeared in the pages of THE LANCET—reveal that he was a scientific exponent of his subject, and his science as well as his art have left an abiding influence upon those who have succeeded him.

We have dwelt first upon CLOVER as the anæsthetist, because to most of us his name is associated especially with that subject, but Mr. BUCKSTON BROWNE'S able address recalled much of the work of CLOVER which falls more within the technical confines of the surgeon. What anæsthesia gained surgery lost by CLOVER'S adoption of the administration of anæsthetics for his special line of practice. No doubt the suggestion of suction as a means for evacuating fragments from the bladder was not CLOVER'S. Sir PHILIP CRAMPTON, and indeed others, had emphasised its value, but to CLOVER belongs the pre-eminent merit of having devised a double-current exhausting syringe, which at once made the suggestion feasible, and the operation of lithotrity, as we know it to-day, thus became an accomplished fact. Many have sought to improve CLOVER'S instruments in this direction, and during his lifetime he wrote pointing out that such "improvements" did, in fact, fall short of the potentialities of his device. We are assured by Mr. BUCKSTON BROWNE, an authority on such matters, that to-day CLOVER'S "bottle" and CLOVER'S method have been reverted to and accepted as the best. The record of CLOVER'S work and ingenuity would fill a volume. Hampered as he was by his delicacy of health, he achieved in all too short a span of life more than many of his compeers could compass in their longer and more vigorous career. Sir SPENCER WELLS said in the Hunterian Oration for 1883, that CLOVER had during the past 20 or 30 years done more for the benefit of the world's suffering millions than almost anyone of his generation. We to-day look back on those years, and while we give to LISTER the highest place, we still recognise how much the world has owed to CLOVER. It may well be asked how many men recognise those to whom they owe their chiefest blessings? CLOVER is unknown to the public, and it becomes all the more a duty to medicine to keep his memory green.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL.—The annual general meeting of this hospital was held on March 13th, the Rev. Thomas Turner in the chair. During the past year the institution has been removed to more commodious premises, acquired, fitted, and furnished at great expense largely owing to the liberality and support of the late president and chairman, the Earl of Crawford, K.T., whose recent death the board greatly deplore. The income for 1912 was £1422, whereas the expenditure was £1479. There is no present available endowment, although at some future time the hospital will come in for a handsome reversionary bequest.

Annotations.

"Ne quid nimis."

THE MILK AND DAIRIES BILL AND MEDICAL OFFICERS OF HEALTH.

AN effort is being made to obtain the insertion into the Milk and Dairies Bill of amendments designed to effect those essential improvements in the position of medical officers of health, to the necessity for which we have several times drawn attention, and most recently in THE LANCET of Dec. 21st, 1912, p. 1741. These improvements are the approximating of the tenure of medical officers of health of boroughs and districts to that conferred on medical officers of health for counties by the Housing and Town Planning Act, 1909, which renders them removable only by the county council with the consent of the Local Government Board, and not otherwise. In public health work it is often and necessarily the case that the interests of the community and those of individuals, or even of a considerable group of the individuals who form the public which puts and keeps the local authorities in power, may be divergent. In such a case the independence of the medical officer of health, which is so indispensable an asset in the performance of his duties, is apt to be undermined, with the result that he is tempted to be supine in the enforcement of his duty to the community as a whole; otherwise he must run the risk of losing his position by the exhibition of zeal, which may be unwelcome to those under whom he holds his post. The matter is one of vast importance to medical officers of health, and it is incumbent on them to see that its importance is recognised by Members of Parliament who will shortly have to determine the course to be pursued. It is no use to have good laws unless they are enforced, and they cannot be enforced impartially if those officials to whose lot it falls to enforce them are not in a secure position as to their tenure of office. An excellent summary of the development of the public health service in relation to its *personnel*, together with abstracts of those parts of the various Acts that bear on the tenure of medical officers of health, was published in the *Medical Officer* of Jan. 4th, 11th, 18th, and Feb. 1st, 1913, from the pen of Mr. Herbert Jones, D.P.H.,[1] and has now been reprinted in a convenient form at the price of one penny. From it medical officers can familiarise themselves with the present position of affairs and with the steps by which that position has been attained, and they can, moreover, make themselves sufficiently conversant with details to be able to use their arguments forcibly and effectively in the effort to bring their Parliamentary representatives to a proper point of view.

WEATHER FORECASTS: PAST AND PRESENT.

THE evolution of the modern forecast service was the subject of an interesting lecture delivered recently by the superintendent of the forecast service of the Meteorological Office, Mr. R. G. K. Lempfert, before the Royal Meteorological Society. He began by tracing the evolution of the modern forecast service from the beginning in 1860 under Admiral FitzRoy up to the present time. Meteorological telegraphy formed an important subject of discussion at the meeting of the British Association held in Aberdeen in 1859, under the presidency of the Prince Consort, and in the following summer the collection of daily telegraphic reports of the weather was commenced by the Meteorological

[1] Security of Tenure for Medical Officers of Health. By Herbert Jones, D.P.H. London: The *Medical Officer*, 33-38, Whitefriars street. Price 1*d*.

Department of the Board of Trade, now the Meteorological Office. The gradual extension of the area from which reports are received was traced, and the improvements in the charts and reports illustrated by lantern slides. Throughout the development the newspaper press has taken a prominent part. Even before the days of official meteorology, in 1849 the *Daily News* had organised the collection of information by telegraph from a network of stations. In 1875 the *Times* started and bore the whole cost of the evening weather service of the Meteorological Office. Subsequently the *Times*, *Standard*, and *Daily News* shared the expense of this service, and it was not until the end of 1880 that the charges were taken over by the Government. Again, from 1877–80 the *New York Herald* experimented in the application of reports from America to European weather, while more recently was the enterprise of the *Daily Telegraph* in collecting reports from Atlantic liners by wireless telegraphy. The lecturer proceeded to describe the present organisation of the Meteorological Office for the collection of information, for charting it when collected, and for communicating it to the public. For the preparation of forecasts, information is received each day by telegraph from 30 British stations and from 40 on the continent of Europe and the islands of the North Atlantic. Information from 30 stations is, however, quite inadequate for checking the accuracy of the forecasts. For this purpose results from more than 130 stations are used. The forecasts are checked separately for wind and weather, the term weather being considered in regard to: (1) temperature; (2) precipitation; (3) cloudiness or the reverse; and (4) fog. The extension of the period covered by the forecasts for "Further Outlook" was next described, and the application of this to the notification of probable spells of fine weather which the Meteorological Office now issues to farmers during the summer. Mr. Lempfert concluded his lecture by giving an account of the organisation of the storm-warning service of the Meteorological Office and of the methods used in checking the results of the warnings. It will be seen that during the past half century much has been done to raise meteorology to the rank of a science. We should like to see the study of meteorology widened, and it is a very interesting subject which more amateurs might take up seriously than do at present.

FATAL HÆMATEMESIS FOLLOWING THROMBOSIS OF THE SPLENIC VEIN.

AT a recent meeting of clinicians in Berlin Dr. C. A. Ewald brought forward a report of a most interesting and unusual case. His patient, a man aged 48, with a healthy family history and no previous illness of any great account, had for several months before admission to hospital noticed an increase in the size of his abdomen and the development of a hard mass in the left hypochondrium. The physical characters of this tumour showed unmistakably that it was an enlarged spleen, but the nature of the enlargement was not so easy to determine. The blood examination discovered nothing positive beyond an increase in the number of red corpuscles; there was no general enlargement of lymph glands; the liver was not increased in volume, and there was no ascites. As the diagnosis was so obscure it was determined to explore the abdomen, but before this could be carried out the man brought up without effort a large volume of red fluid blood—1240 c.c.—within half an hour, and died on the following morning in spite of all attempts to restore him. At the post-mortem examination the stomach and intestines were full of blood, but the mucous membrane was innocent of any source of hæmorrhage obvious to the naked eye. The spleen, which had perceptibly shrunken after the hæmorrhage and before death, was still enlarged and firm; microscopically it presented the features characteristic of chronic passive hyperæmia. In the portal vein there were evidences of a chronic obliterative endophlebitis, and the lumen of the splenic vein was partially occluded by a canalised thrombus. Dr. Ewald asks two questions: What was the cause of this partial sclerosis of the portal system? and by what means was the gastric hæmorrhage provoked? In regard to the first, he notes that hepatic cirrhosis, which usually accompanies sclerosis of the portal vein and its tributaries, was totally wanting; his patient was innocent of syphilitic infection, which has apparently been responsible for most of the few recorded instances of primary portal phlebosclerosis; and the change in the splenic vein differed from that seen in Banti's disease in that in the latter the spleen is primarily diseased, whereas in his case all the splenic changes were accountable for on the score of passive hyperæmia. He was unable to assign any cause for the changes in the splenic vein. The source of the hæmorrhage was equally obscure. There were no varices at the cardiac end of the stomach, neither was there any gross ulceration of the mucosa. The hæmorrhage, which probably resulted from passive hyperæmia of the gastric mucosa, appears to have been of the type which he has described as "parenchymatous," a term which he seems to use for cases similar to those described under the head of "gastrostaxis" by British physicians. In the discussion, which is reported in the same number of the *Deutsche Medizinische Wochenschrift* (Feb. 27th, 1913), Fürbringer described a somewhat similar case, but here a cancerous growth in the stomach accounted alike for splenic thrombosis and fatal hæmorrhage, and Dr. Ewald, in reply to a question, said that in his case there were thrombo-sclerotic lesions in the smaller portal radicles, but limited in extent and not completely occluding the lumen of these channels. It seems likely, therefore, that in this unique case the venous lesion was the primary one, but there is nothing to show by what means these phlebo-sclerotic changes were brought into being.

DEAN SWIFT ON MADNESS.

THAT Dean Swift was mad towards the close of his life there can be little doubt. He sat brooding darkly, withdrawn into himself. A visitor to whom he offered wine and the uncivil advice to be moderate in his use of it might have found him mad where others found him sane, but his reason, on the whole, had failed him. It is curious to find with what gusto the great Dean writes of insanity on many occasions. There is, for instance, his well-known digression in "A Tale of a Tub" concerning "the original, the use, and improvement, of madness in a commonwealth." "If," says he, "we take a survey of the greatest actions that have been performed in the world, under the influence of single men, we shall find the authors of them all to have been persons whose natural reason had admitted great revolutions from their diet, their education, the prevalency of some certain temper, together with the particular influence of air and climate ..... it is of no import where the fire was kindled if the vapour had once got into the brain." Later, he speaks of the value of this vapour to enthusiasts and fanatics. "Of such great emolument is a tincture of this vapour, which the world calls madness; that without its help the world would not only be deprived of those two great blessings, conquests and systems, but even all mankind would unhappily be reduced to the same belief in things invisible.' We might, however, set against this last statement the fact that man has always tended to believe in the invisible, in a life after death, and the ultimate conquest of

good over evil. Too clear a view of the rationale of this grim universe would have driven whole generations of men to despair and to suicide, as it drove that strange materialist, John Davidson, not many years ago. Davidson, a most amiable and gentle writer, drowned himself deliberately because he had come to the conclusion that mankind, a terminable and evanescent phenomenon, is God in process of evolution. Swift devotes many pages to the effects of the vapour of madness upon mankind. Every species of it proceeds from a redundancy, but it is always produced in the same way—by a rising of the ingenious particles with the vital liquor, producing "an abstraction of the rational part of the soul, which we commonly call madness." Swift's correspondent, Henley, notes that talking to oneself is esteemed a sign of madness. "Pray, doctor, let me know whether writing letters be talking to oneself." Swift, however, quotes an Irishman as saying that the difference between the sane and the insane in conversation lies in this, that the lunatic blurts out whatever comes into his mind "just in the confused manner as his imagination presented the ideas." The sane, on the other hand, he said, weigh their utterances. Swift writes of the madness of nations and its causes, and cites what he believed to be the long insanity of the Puritan Revolution, but his own diseases he cannot diagnose. His deafness, believed to have been caused by disease of the semicircular canals, he attributed to his excessive eating of apples, of which he once consumed about 120 in a day. He notes in his "Journal to Stella" his almost daily struggle to eat fewer apples. His deafness was doubtless contributory to his insanity. He was stone deaf for a year or so before he died, and at the same time utterly silent. During his last period of mental gloom the Earl of Orrery writes to a friend bewailing the overclouding of the once brilliant intellect, and notes with what horror Swift, himself persecuted at the last, had always regarded the madness that in individuals has been the result of persecution. Perhaps with premonition of his own fate Swift left his fortune to endow a madhouse.

SANATORIUM BENEFIT IN EAST ESSEX.

IN another column we publish a report of the first 100 cases recommended for sanatorium benefit in East Essex; it is written by Dr. James D. Macfie, tuberculosis officer to the Essex county council. After describing the manner in which the county of Essex is divided for the purposes of administration, Dr. Macfie proceeds to give a brief account of the work which has been accomplished. The report is chiefly of value in drawing attention to the difficulties which arise under the scheme as illustrated by the experiences of the three officers appointed by the Essex county council. In the first place, it was found that the three areas were much too large, thus thoroughly justifying the original report of Dr. J. C. Thresh, the medical officer to the Essex county council, who had advised that there should be nine areas in all. It is to be hoped that other county councils will take warning from this error and assure themselves that the number of tuberculosis officers appointed will be in satisfactory proportion to the insured population and the manner in which that population is distributed. Dr. Macfie points out that a great difficulty is found in dealing effectively with thinly populated districts, and unless this is borne in mind a partial failure may follow. Attention is also drawn to the paramount importance of the complete coöperation between the medical officer of health and the tuberculosis officer. For the smooth working of the sanatorium benefit, however, it is essential that, whilst cordially supporting each other, these officers should confine themselves each to their own particular duties, and not attempt any overlapping. As might be expected, the fairly advanced cases were the most numerous. The general practitioner will doubtless take an increased interest in tuberculosis if his aid is cordially invited, and as time goes on the disease may then become recognised in a more incipient condition. The term "early case" has gradually become almost synonymous with "a favourable case," and this is to be regretted, since an "early case" may be an acute case and quite unsuited for treatment in a sanatorium, a hospital being the more suitable institution. We recommend Dr. Macfie's paper to the careful attention of those responsible for the institution of "sanatorium benefit" in other counties. The want of proper sanatorium and hospital accommodation is greatly accentuated in some districts. The reason for this is to a large extent financial, and time alone can show whether existing institutions can come to the aid of district authorities in a satisfactory manner.

CANCER OF THE BREAST RECURRENT FIVE TIMES IN 30 YEARS.

UNDER the title "Non-malignant Cancer of the Breast" we discussed recently an Australian case of cancer of the breast with a duration the greatest on record—47 years.[1] No operation was ever performed. In the *Edinburgh Medical Journal* for February Mr. David M. Greig has reported a case of cancer of the breast of remarkably long duration, though far short of the period just mentioned, in which recurrence took place no fewer than five times. The patient was a widow, aged 71 years at the time of death, October, 1903. She was unable to give details of family history. Her only child died at the age of 40 years from jaundice, the history strongly suggesting a malignant origin. Except for the breast trouble she had always been strong and healthy, a splendid type of hardy Highlander. In 1872 she was struck on the left breast by a cow's horn. Eighteen months later a little hard nodule appeared at the inner quadrant. Towards the end of 1873 this was excised by the late Professor Annandale. In 1881 the growth had recurred and he removed the entire breast. She remained free for seven years, but in 1888 recurrence had again taken place, and Professor Annandale removed the growth. She stated, and the scar indicated that she was correct, that the axilla was never included in any of the operations. In 1889 a third recurrence was removed by Professor D. MacEwan and Dr. Templemore. In 1894 a nodule appeared in front of and below the clavicle. In 1898 she first came under Mr. Greig's observation. She was a healthy, hearty-looking woman able to do house work and attend to lodgers whom she kept as a means of livelihood. An oval tumour, measuring 6 inches in its longest diameter, projected above the middle of the left clavicle, and extended down to the lower border of the pectoralis major. The overlying skin showed some telangiectasis and several large veins. The tumour was soft, and in places suggested fluctuation. It had all the appearances of a sarcoma. It was excised in May, 1898, and was found to consist of two parts, each being soft and encapsulated and slightly lobulated. Though there was no evidence of involvement of the axillary glands they were removed, as the original tumour was described as hard, suggesting carcinoma. The wound healed by first intention. Five months later she was complaining of pain in the left shoulder. About 1½ inches from the outer end of the clavicle a vaguely defined soft swelling had appeared above the bone, which seemed to be involved. Both the tumour and the clavicle were removed together. It was found necessary to remove also the coracoid process of the scapula, as it was obviously

[1] THE LANCET, Feb. 22nd, 1913, p. 562.

affected. The tumour had extended underneath the pectoralis major. Complete eradication was impossible. This operation was followed by much greater relief than could have been expected. The wound healed well and movements of the arm appeared to be limited only by the cicatrix of the operation of 1898. She continued well for several months, but towards the summer of 1900 recurrence again took place. As the growth increased she became more and more incapacitated for house work. In November she was admitted to the Royal Hospital for Incurables, where she died in October, 1903. The immediate cause of death seemed to be debility, which was accompanied by marked emaciation, and was doubtless hastened by recurring hæmorrhage from several small ulcerating patches. The tumour remained soft until the end. For some weeks before death there were pains in the chest and lower limbs, suggesting vertebral involvement, but the necropsy showed that the growth had perforated the chest wall and extended on to the pleura and along the line of the ribs, while down the spine were many secondary growths. In consequence of the nature of the recurrence, the appearances of the tumours, their softness, the rounded bases, the encapsulation in the earlier stages, and the absence of glandular involvement, Mr. Greig had no doubt that the condition was sarcoma. However, Professor L. R. Sutherland, who examined the specimen, pronounced it to be alveolar carcinoma.

A DANGER TO HEALTH IN THE NEW FOREST.

IN years past, when elementary considerations of public health were less understood than they now are, the reports of the medical inspectors of the Local Government Board very often related to towns and villages which had been attacked by epidemics of enteric fever in consequence of the pollution of local shallow wells or other sources of water-supply, and of the neglect of the sanitary authority concerned to take necessary precautions with respect to the early cases from which the wholesale infection had been derived. Such instances, though less common at the present day, may still be met with, and a striking example will be found in the report recently made to the Local Government Board by Dr. Hugh A. Macewen[1] on an outbreak of enteric fever in Ringwood which occurred last autumn. In the small town of that name, with a population of some 3000, as many as 77 cases of enteric fever occurred during the months of July, August, and September, several of which were fatal. Dr. Macewen gives an admirable account of a very thorough investigation into all the circumstances of the epidemic, which presented some unusual features. The majority of those attacked were children of school age, and suspicion first fell on the schools they attended and on certain school treats which seemed to have been connected with the spread of infection. The facts set out in the report, however, show that the first of these must be eliminated, and that although there was some reason to implicate ice-creams consumed at the school treats, infection in this way could only have played a minor part, if any, in the production of the outbreak. The key to the causation was found in the fact that a quite disproportionate number of those attacked obtained their drinking water from an open stream which crosses the centre of the town, and the evidence that many of the children who had to cross the stream on their way to school were in the habit of drinking from it. The stream in question crosses ground which is used as a place of deposit for rubbish of all kinds, and then through gardens and yards in which it is exposed to fæcal pollution and receives slop-water from houses. The stream supplies only a small portion of Ringwood with water, but the ordinary sources of supply are by no means free from danger, as they consist usually of shallow wells into which soakage takes place from the surface and which may also receive polluting matters from neighbouring cesspools and leaky drains. It is surprising, as Dr. Macewen observes, that a place of the consequence of Ringwood has not long ago been provided with a suitable water-supply of satisfactory quality. In this and other matters, however, the report shows very serious defects in the proceedings which have passed for sanitary administration in the locality. Dr. Macewen ascertained that the first case of enteric fever in the town occurred on July 18th, and that by Sept. 1st 48 cases had occurred without any adequate measures having been taken to investigate the circumstances and check the spread of the disease. On August 31st, when the official inquiry was ordered, the Local Government Board had been unable to obtain any statement of what was happening, beyond the bare figures of notified cases, from the district council or its medical officer of health. Some hospital accommodation of an unsatisfactory kind was improvised in August and some tardy steps were taken to secure safety in the disposal of excreta from infected houses, but as a whole the facts given in the report cannot be regarded as creditable to the local public health service. We read that the attitude of the district council has caused much local dissatisfaction, and it is to be hoped that the sanitary authority of this historic and picturesque little town will now put their work into better order and provide a proper water-supply without delay. They have not only their own population to consider, but the health of the numerous visitors to this part of the New Forest, by whom the publication of this report should be taken as a warning against the conditions at present existing.

[1] Reports to the Local Government Board on Public Health and Medical Subjects (New Series, No. 74). London: Wyman and Sons; Edinburgh: H.M. Stationery Office; Dublin: E. Ponsonby. Price 9d.

INTRATHORACIC INJECTIONS IN PHTHISIS.

IN the *Rivista Medica* (Vol. XX.) Dr. V. D'Amico gives details of 22 cases in which he practised the special method of treatment initiated by him. This method consists in injecting an iodised fluid through the intercostal spaces, with the object of bringing it into direct contact with the diseased focus in the lung, whether a cavity or area of tuberculous infiltration. As the 22 recorded cases derived very distinct benefit from this procedure, bearing in mind also the fact that they were in more or less advanced stages in which other methods of treatment give but little scope for encouragement, Dr. D'Amico's method seems certainly deserving of further trial. More especially is this the case since in none of the patients treated by him did any untoward result seem to follow the injections, which were well tolerated, nor did there seem to be any danger of hæmorrhage even when the case was one of hæmoptysis; moreover, two cases were in children aged 4 and 10 years respectively. Two solutions were used by Dr. D'Amico, either singly or alternately, but he seems to have a decided preference for the first, which consists of iodoform 1 grm., camphor 2 grm., guaiacol 5 grm., essence of mint 30 drops, and olive oil 20 grm.; the other preparation used by him was Zambeletti's iodised serum. The needle, preferably of platino-iridium, should be of fine calibre and from 3 to 5 cm. long. In adults from 20 to 60 injections had to be given according to the extent of the disease, while in the two cases of children already mentioned 10 sufficed. 1 c.c. was the usual amount injected, but as much as 4 to 6 c.c. was required in cavities. In choosing a spot for the puncture, while it is, of course, necessary to avoid the cardiac area and large vessels, the object is to slowly inject

the solution directly into the affected part of the lung; the most favourable area being that comprised between the dorso-scapular and anterior axillary on the left and between the second and sixth ribs on both sides. The best point for reaching the apex was found to be the second intercostal space in the dorso-scapular region. Of the tuberculous nature of the reported cases there could be no doubt, and in all of them there ensued after the injections gradual cessation of fever and cough, disappearance of Koch's bacilli from the sputum and of the physical signs present, and restoration to health, while the treatment neither interfered with open-air exercise nor prevented the patients following their ordinary occupation.

THE OCCURRENCE OF THE SPIROCHÆTA PALLIDA IN THE BRAIN IN CASES OF GENERAL PARALYSIS.

IT is only a few years ago that Schaudinn made his most valuable discovery of the spirochæta pallida as the organism of syphilis—a discovery which it is no exaggeration to say has revolutionised our whole conception of that disease and its sequelæ. The time-honoured distinction of syphilitic and parasyphilitic or metasyphilitic affections bids fair soon to disappear. It is held, or has been held, almost universally, that tabes dorsalis, optic atrophy, tabo-paresis, and general paralysis, if originating in previous syphilitic infection, are of so different a nature from ordinary syphilitic diseases of the nervous system, syphilitic meningitis, gummatous meningitis, cerebro-spinal syphilis, and so on, as to constitute a class by themselves. It is usually taught that they are histologically distinct, that in their case a very long period after infection may elapse before the first symptom shows itself, that they are peculiarly resistant to antisyphilitic treatment. But not a few neurologists nowadays maintain that no one of these statements is of itself an adequate criterion for a differential diagnosis, and a good deal of evidence is forthcoming to support their contentions. Again, the serological similarities between syphilis and general paralysis are striking and important. It is true that, as a rule, cerebral syphilis, so-called, and general paralysis are readily distinguishable, but it must be remembered that cerebral syphilis is essentially a disease of the supporting structures of the brain, whereas the latter condition is a disease of the nervous parenchyma, and there is no valid reason why it should not be considered equally syphilitic, the incidence of the morbid process being altered. A number of cases have been described in which the two processes were combined. Ranke and others have demonstrated the spirochæta in the vessel sheaths and membranes in cases of congenital syphilis. Dunlap has shown it to occur in cerebral syphilis. And now, in a brief communication in the *Journal of Experimental Medicine* for February, Dr. Hideyo Noguchi and Dr. J. W. Moore, working in the laboratories of the Rockefeller Institute, report that they have discovered the spirochæta in 12 out of 70 brains of patients dying with general paralysis. The descriptions they furnish of the clinical phenomena can leave no doubt in the mind of anyone that the cases were classical instances of general paralysis, and not merely cerebral syphilis. Using a modification of Levaditi's silver method, Dr. Noguchi and Dr. Moore have been able to demonstrate the presence of the organism in all layers of the cortex, with the exception of the outermost layer. A few were seen in the subcortical tissue. None could be found in the pia. They were not found in the vessel sheaths and seldom in the immediate neighbourhood of the larger vessels. The general histological changes characteristic of dementia paralytica were most marked in the cases in which the spirochæta was found. It is to be noted, moreover, that these brains did not show to any extent the modifications of the supporting tissues associated with so-called cerebral syphilis. Ten of the 12 cases were men and two women, and it is recorded that the actual duration of the disease was distinctly below the average. It is possible, therefore, that the spirochæta will be found more easily in those cases which run a fairly rapid course. We may expect further light on the subject with improvement in technique. Meanwhile, the importance of the announcement can scarcely be exaggerated, and it is probable that we are on the eve of still more significant discoveries. No one can doubt that the ultimate result of such researches will be to engender a ray of hope, from a therapeutic standpoint, where at present the physician can see little to encourage him.

A CASE OF ANÆMIC INFARCT OF THE SMALL INTESTINE.

AN interesting account of a rare condition of the intestine is given by Dr. W. R. Meyer in the *Centralblatt für allgemeine Pathologie und pathologische Anatomie* of March 15th. The patient was a man aged 70, admitted into the hospital at Charcow for weakness and pain in the extremities. The clinical records showed that he had been ill for four weeks, and the conditions diagnosed were senile marasmus, arterio-sclerosis, and emphysema of the lungs. There was a slight degree of fever. The patient became gradually worse and died after being 38 days in hospital. At the necropsy arterio-sclerosis of the cerebral vessels, the coronary arteries, and of the aorta and its principal branches was found. The coils of the ileum had sunk into the pelvis and were adherent there by recent exudate. A particular coil 150 cm. from the valvula Bauhini was found to be hard for a distance of 4·5 cm. The margins of this part of the bowel were sharply defined, and on the serous coat there was a distinctly hæmorrhagic area. The proximal part of the bowel was dilated, the distal was collapsed. On opening this part of the intestine it was found that the mucous membrane was raised and stained orange-yellow by the bile. The circumference of the bowel at this part measured 8 cm. The folds of mucous membrane were effaced except at the mesenteric attachment. The hardened part was delimited from the adjacent sections of the bowel by two parallel ring-shaped ulcers 2–3 mm. in breadth. The length of the necrotic part of the bowel between them was 4 cm. The wall of the intestine in this part was twice as thick as normal. At the insertion of the mesentery there was a pad-like swelling which on section showed a yellow friable mass of necrotic tissue and numerous small sclerosed arteries with occluded lumina. On microscopical examination the mesentery at its attachment was found to be infiltrated with leucocytes, in some places in such quantities that they obscured the tissues of the mesentery itself. Many polynuclear cells and much fibrin were present. The capillaries and small vessels were overfilled with blood and contained recent red thrombi. The large veins were occluded by mixed thrombi, and some of them by white thrombi of leucocytes. In the small-celled infiltration appearances of karyorrhexis was observed in places. The lumina of the arteries were either obliterated by connective tissue or occluded by recent red thrombi. The adventitia of the arteries was thickened and infiltrated with round cells. In places the sclerosis of the intima was strongly marked. In the neighbourhood of the infarct the mucous membrane and the submucosa were completely necrotic. At the edges marginal zones characteristic of an anæmic infarct, with dilated capillaries and small-celled infiltration of the stroma, were visible. The explanation given by Dr. Meyer is that the

arteries were affected by an old chronic obliterative arteritis, and that an acute thrombosis supervened, causing anæmic infarction.

THE REGULATION IN LONDON OF CERTAIN TRADES LIABLE TO CAUSE NUISANCE.

IN view of our recent comments on the nuisance caused by fried fish shops, we are interested to learn that at the first meeting of the London County Council since the elections the Public Health Committee submitted for approval a series of by-laws prepared for regulating the conduct of the businesses of fried-fish vendor, fish-curer, and rag-and-bone merchant. The Council has had power since 1908, under the General Powers Act of that year, to make by-laws for this purpose. After the proposed regulations have been considered by the metropolitan borough councils the Local Government Board will be asked to confirm them. The by-laws with regard to a vendor of fried fish provide that the premises in which the business is carried on shall be constructed in accordance with certain specified requirements; that such precautions as may be necessary shall be taken to prevent effluvium arising from the operation of preparing the fish, and that garbage shall be speedily removed. The clause that aims at lessening the odours that arise from the cooking of the fish provides that every furnace shall be provided with side screens and a suitable hood of a hard, smooth, fireproof, and impervious material for the purpose of collecting all gas or vapour emitted during the process of frying, and such hood shall be connected with a flue having a good draught. The gas or vapour shall either be discharged from the flue into the external air in such a manner and at such a height as to admit of its diffusion without noxious effects, or be passed from the flue through a fire or into a condensing apparatus so as to effectually consume the gas or vapour. The maximum penalty for infringement is £5, and 40*s*. for each day that an offence is continued after notice has been given. The by-laws in the case of the other trades specified are similar.

REPORT OF THE BUREAU OF MICROBIOLOGY, NEW SOUTH WALES.

THE report of this bureau for the years 1910 and 1911 shows that the staff has been very fully occupied with the routine work which falls to the lot of the department, and with important researches suggested by this routine work or called for by questions submitted to the bureau by the various departments which make use of its services. In a country in which private laboratories are not numerous such a bureau as this does the work which is here distributed amongst hospital, municipal, and departmental laboratories, and the work therefore calls for great adaptability on the part of the staff and a readiness to prepare for and undertake fresh duties. The director sees before him a widening sphere of activity in connexion with the supply of antitoxins, serums, and vaccines, and is arranging to meet the demand for these products. This is especially the case with regard to calf lymph, which at the present time the colony obtains entirely from outside sources, and these, it is felt, might, in the event of an epidemic of small-pox, be no longer available. Measures of plague surveillance form no inconsiderable part of the work of the bureau, and require the examination of some 23,000 rats and mice per annum. Associated with this routine work an interesting and important research on the number and variety of fleas found on these animals appears to show a relation between plague periods and the increase in the numbers of the flea xenopsylla cheopis, while no such relationship holds with regard to the other rat fleas. In the portion of the work which corresponds to that of the clinical laboratory of a general hospital the examinations are distributed much as with us, and about half are accounted for by diphtheria, typhoid, and tubercle. There has been, as might be expected from the new methods of serum diagnosis introduced, a sudden rise in the number of syphilitic cases examined from 60 in 1910 to 540 in 1911. Researches on typhoid fever and food poisoning have been carried out, and the investigators seem more satisfied than most workers with the biochemical methods for differentiating the organisms concerned. Unfortunately, no distinction is drawn between the paratyphoid bacilli, so that it is impossible to learn whether Australia resembles India or England in the relative importance of the two varieties. The Department of Agriculture has called for help in the investigation of animal and plant diseases, and the supply of nitrifying organisms and lactic acid cultures for butter "starters" forms part of the routine work of the laboratory. A research on contagious abortion in cattle is of some importance. The protozoal and other parasites of birds, animals, and man have been the subject of an extensive research, and the report concludes with an investigation on soils and on the permeability of living membranes. It is plain that the department has been kept very fully occupied and has done much valuable work, on which Dr. F. Tidswell, the director, is to be congratulated.

UNPLEASANT ODOUR AND TASTE IN DRINKING WATER.

COMPLAINTS have been made during the week by the residents of Hampstead and district in regard to an unpleasant odour and taste which their drinking-water supply recently developed. Judging from the accounts given as to the nature of the unusual smell and taste, it would appear to be merely a case of an invasion by an organism which possesses no pathogenic significance. The presence of pathogenic organisms in water is not necessarily disclosed by smell or taste. There are many harmless water organisms which under certain conditions are capable of producing in water odour and taste described sometimes as aromatic, grassy, or fishy. These organisms have given trouble to water engineers at various times and places, even with filtered water, but more particularly with unfiltered water. The development has often been traced to "dead ends" or to places in the system of supply in which the water can stagnate. The trouble is usually soon removed after a careful inspection of mains and reservoirs. Long exposure to light is known to foster the growth of diatoms and green algæ, and amongst these are organisms which are capable of producing oils with a fishy odour. Generally speaking, the presence of such organisms does not give any harmful quality to the water, but, of course, it is very undesirable.

WE much regret to announce the death of Dr. Alfred Lewis Galabin, consulting obstetric physician to Guy's Hospital, which occurred on Tuesday, March 25th, at his residence, Tapley, Bishopsteignton, South Devon, after a brief illness.

CERTAIN allegations having been made in the *Hospital* by two late residents at the York County Hospital against the general and domestic management of the institution, the house committee and the medical board have invited the President of the Royal College of Surgeons of England to nominate a competent and independent person to make a full inquiry into the charges. Pending the result of this inquiry, opinion on the circumstances should be reserved.

THE FIRST 100 CASES RECOMMENDED FOR SANATORIUM BENEFIT IN EAST ESSEX.

BY JAMES D. MACFIE, M.B., CH.B. GLASG.,
TUBERCULOSIS OFFICER TO THE ESSEX COUNTY COUNCIL.

THE three tuberculosis officers for Essex were appointed at the end of last September, and work was actually begun on the 25th of that month. At present the county is divided into three areas, the Metropolitan (Dr. W. O. Pitt), the Western (Dr. F. G. Bushnell), and the Eastern. The Eastern area extends from Harwich to Manningtree, to Colchester, to Hatfield Peverel, to Great Leighs, to Ingatestone, down to Canvey Island on the River Thames. The population of the area is about 260,000, and it has an acreage of 330,000 acres. It includes the unions of Tendring, Lexden and Winstree, Chelmsford, Maldon, Rochford, and Billericay. The three largest towns are Chelmsford, Colchester, and Southend-on-Sea. In each of these towns there is a tuberculosis dispensary, which the tuberculosis officer attends twice a week. Chelmsford Dispensary began work in November, the other two in the middle of January. The reason for the delay was partly an economic one and partly owing to the unsettled condition of the medical horizon. The late opening of the dispensaries, of course, accounts for the large proportion of cases recommended for domiciliary treatment. That the three areas were much too large was perfectly recognised by Dr. J. C. Thresh, who in his original report advised that there should be nine areas in all, with nine tuberculosis officers. Three new tuberculosis officers are now being added, one extra for each of the three areas, and no doubt in the near future three more will be needed. The great difficulty even then will be found in dealing effectively with the thinly populated districts, and experience alone will solve the difficulty. At present we are handicapped by an unavoidable shortage of sanatorium and hospital accommodation; it therefore behoves the tuberculosis officer to go very carefully into each of his cases and choose the ones most urgently in need of institutional treatment. The home conditions have to be carefully considered; hence the importance of visiting the patients' homes. It is here that the complete coöperation between the medical officer of health and the tuberculosis officer is of paramount importance. Personally, I do not see that there need be any difficulty at all if one bears in mind that one is working for the good of the patient and thereby the good of the State. Time will undoubtedly be needed to get this and many other matters into perfect working order.

Sanatorium benefit consists of: (*a*) Treatment in a sanatorium, (*b*) treatment in a hospital, (*c*) domiciliary, (*d*) dispensary, and (*e*) the provision of extra diet and the loan of an open-air shelter. Tuberculin is used in suitable cases. The classification in use in Essex is the following: 1. Cases in which the disease can be diagnosed or is strongly suspected, but in which there is no evident impairment of the working capacity. 2. Cases of recent onset with some impairment of the working capacity, but without marked evidence of ill health. 3. Cases of recent onset with evidence of acute disease. 4. Cases of a longer history of illness. In some of these cases permanent arrest of the disease may be hoped for, but in the majority restoration to full working capacity for more than a comparatively short period is not to be looked for. 5. Cases in which there is permanent loss of working capacity. Many of these patients live for a considerable period in a condition of chronic ill health. 6. Cases in which a fatal termination within six months is probable.

As this classification is not well known at present, I give Turban's as well. Of the 100 cases, 7 cases do not come under either classification, leaving 93 cases divided as follows: Group I., 2; Group II., 16; Group III., 21; Group IV., 26; Group V., 23; and Group VI., 5. Turban's classification: Group I., 20; Group II., 33; and Group III., 40.

This proves without further comment how advanced the cases are before they come under the notice of the tuberculosis officer. In the two annual reports I drew up while medical superintendent at Benenden Sanatorium I called attention to the advanced condition of the so-called early case, and in every report in every sanatorium in Great Britain the same complaint is annually made. Even in the short time work has been going on in Essex one has been greatly cheered to see that the general practitioner is getting more interested in his chest work, and that, if therefore for nothing else, the existence of tuberculosis officers is distinctly justified.

The age-incidence of the 100 cases is as follows: Between 10–20 years, 26; 21–30 years, 39; 31–40 years, 20; 41–50 years, 11; 51–60 years, 2; and 61–70 years, 2. There is nothing unusual to note in these figures. There were 68 male patients and 32 female patients. There was no marked difference in the stage of disease between the two sexes. As to employment amongst the men, 42 were indoor workers, 18 were outdoor workers, and 8 were boys. Of the women, 6 were housewives, while others were hospital nurses, domestics, typists, &c. Of the 7 cases not in the classification, one was suffering from tuberculosis of the hip-joint, one from tuberculosis of the ankle-joint, one with tuberculous cervical glands, one with tuberculosis of the mesenteric glands, while the remaining cases were dealt with from medical diagnosis other than that given by the tuberculosis officer. Of the 100 cases, 22 were in strictly rural surroundings and 78 in urban districts. Of the 78, 39 were in Southend, 24 in Colchester, and 9 in Chelmsford. Of the remaining 6, 2 were at Maldon, 2 at Clacton-on-Sea, and 2 at Rochford. To see and deal with these cases about 2502 miles were covered—in other words, 25 miles for each case. Complications included tuberculosis of the kidney and bladder, 3 cases of laryngeal phthisis, 1 case of ischio-rectal abscess, 1 case of lupus vulgaris, 1 case of lupus erythematosus, 1 case of lupus of the skin of the arm, and 2 cases of tuberculous ribs. The symptoms were just what one would expect in any 100 case series of consumptives. Unfortunately, so far we have no county sanatorium, so we have had to hire beds at sanatoriums, while the isolation hospitals are being utilised, several hospitals having put ward blocks at our disposal or have erected Essex county council shelters (of wood, with windows on each side and double folding-doors) in the grounds or on ground immediately adjoining the hospital. Sanatorium treatment was recommended for 16 patients, hospital treatment for 8, dispensary treatment for 28, and domiciliary treatment for the rest.

It is hoped that this article, which I have tried to make as brief as possible, may be of some interest, and perhaps of some use, to other counties which started work later in the day than we in Essex did. In conclusion, I have to thank Dr. Thresh (whose untiring energy has done so much for Essex), the county medical officer and chief tuberculosis officer, for his kindness in allowing me to publish this series.

SUNSHINE AND RAINFALL IN 1912.

THE figures given below have been compiled from an annual summary of the weather issued by the Meteorological Office, and show the mean daily duration of sunshine and the total rainfall, together with the number of days with at least 0·05 inch of rain, and where possible the difference from the average. Stations where no average is available have blanks inserted. It will be noticed that the only spots with more sunshine than the normal were Westminster and Tunbridge Wells, and that except at some places in the eastern regions of Ireland and Britain the rainfall was in excess. The least sunny neighbourhood was Manchester, with a mean daily amount of 2·13 hours, and a total of only 779 hours, while on the south-east coast of England there was more than 1600 hours, and the mean daily duration more than four hours. The absolute highest on the mainland was 1666 hours at Felixstowe, giving a daily mean of 4·54 hours, and this was just beaten by Guernsey, where the corresponding values were 1696 hours and 4·63 hours. There was less rain on the northern side of the estuary of the Thames than elsewhere, Southend-on-Sea having a lower total (20·6 inches) than any other place in the table, but Tottenham had the fewest rain days. The total of only 139 days with rain at that spot is very remarkable. In the other

parts of the metropolitan area the rain days were much more numerous.

	Sunshine.		Rainfall.		
	Daily mean.	Difference from average.	Total fall.	Difference from average.	Number of days with rain.
	Hours	Hours.	Inches.	Inches.	
Totland Bay, Isle of Wight	4·23	—	35·2	+ 7·1	196
Sandown, Isle of Wight	4·30	—	32·3	—	200
Ventnor, Isle of Wight	4·10	- 0·61	30 0	+ 0·4	189
Southampton	3·76	- 0·79	37·3	+ 6·4	189
Bournemouth	4·10	—	42·7	—	203
Jersey	4·54	- 0·73	43·3	+ 9·1	216
Guernsey	4·63	- 0·58	46·6	+ 9·0	237
Weymouth	4·32	—	37·9	—	191
Torquay	3·95	- 0·78	37·5	+ 3·2	191
Plymouth	3·69	- 0·82	47·0	+11·2	219
Falmouth	4·00	- 0·83	56·2	+ 9·8	226
Scilly Isles	3·99	- 0·96	36·5	+ 2·8	241
Penzance	3·92	—	52·3	—	240
Newquay	3·75	- 0·86	43·8	+ 8·7	223
Ilfracombe	3·54	—	56·9	—	225
Cardiff	3·70	—	51·4	+ 8·7	219
Pembroke	3·11	-1·38	41·0	+ 6·0	220
Aberystwyth	3·62	—	40·0	—	228
Aberdovey	3·61	—	43·2	—	216
Llandudno	3·74	- 0·21	33 0	+ 2·2	200
Rhyl	3·87	—	31·1	+ 5·1	210
Hoylake	3·59	—	29·1	—	197
Colwyn Bay	3·69	—	32·8	—	176
Southport	3·56	- 0·45	37·1	+ 4·2	212
Blackpool	3·57	- 0·28	38·5	+ 4·7	216
Carnforth	2·88	—	44·0	—	221
Douglas, Isle of Man	3·88	- 0·49	42·7	+ 0·4	231
Seathwaite	*	—	142·9	—	251
Scarborough	2·85	—	28·0	+ 0·8	208
Durham	2·68	- 0·92	29·2	+ 2·0	194
Hull	2·26	—	33·2	+ 7·5	205
Skegness	3·74	—	32·5	—	209
Norwich	3·75	—	35·0	—	225
Cromer	3·63	—	32 3	—	255
Yarmouth	4·12	—	33·6	+ 8·3	198
Lowestoft	4·09	—	28·9	+ 5·2	189
Geldeston	3·85	- 0·58	29·1	+ 5·4	210
Felixstowe	4·54	—	23·6	—	199
Clacton	4·13	—	22·4	—	170
Southend-on-Sea	4·01	—	20·6	- 0·8	179
Margate	3·72	- 0·49	25·4	+ 2·2	179
Dover	4·33	—	29·2	—	209
Folkestone	4·42	—	31·2	+ 3·2	171
Hastings	4·40	- 0·47	32·0	+ 2·9	207
Eastbourne	4·47	- 0·28	37·5	+ 6·6	187
Brighton	4·05	- 0·68	33·0	+ 5·5	183
Worthing	4·40	—	36·0	+ 9·0	192
Bognor	4·33	—	31·2	—	178
Harrogate	2·95	—	41·8	+12·3	199
Buxton	2·86	—	54·4	+ 3·8	232
Bettws-y-Coed	3·00	—	63·2	—	218
Llangammarch Wells	2·97	—	59·3	—	251
Great Malvern	3·68	—	43·0	—	207
Bath	3·72	—	37·3	+ 6·8	197
Cheltenham	3·47	—	34·7	+ 7·0	191
Tunbridge Wells	4·39	- 0·05	38·2	+ 8·6	192
York	2·68	- 0·91	33·0	+ 7·7	198
Sheffield	2·93	—	39·1	+ 6·6	204
Nottingham	2·81	—	30·1	+ 5·3	205
Birmingham	2·55	—	36·0	+ 8·6	206
Manchester	2·13	—	40·6	+ 5·5	233
Liverpool (Bidston)	3·42	—	30·2	+ 1·4	209
Marlborough	2·98	- 0·83	40·3	+ 8·4	200
Oxford	3·54	- 0·36	32·5	+ 7·4	189
Cambridge	3·74	- 0·52	27·3	+ 4·6	182
Tottenham	3·42	—	26·0	—	139
Hampstead	3·55	—	29·1	—	191
Camden Town	3·22	—	27·9	+ 2·7	180
Westminster	3·20	+0·07	24·3	- 0·1	175
Greenwich Observatory	3·74	- 0·43	24·9	+ 0·8	183
Kew Observatory	3·52	- 0·49	28·0	+ 4·0	194
South Kensington	3·09	—	24·4	—	168
Nairn	2·90	—	26·9	+ 2·3	248
Strathpeffer	2·74	- 0·51	31·4	- 0·9	230
Fort Augustus	2·40	- 0·03	50·3	+ 5·7	244
Aberdeen	3·00	- 0·83	29·3	- 1·4	193
Oban	2·96	—	61·2	—	243
Glasgow	2·37	- 0·62	41·0	+ 2·2	212
Marchmont	2·79	- 0·85	31·9	- 2·5	197
Dublin (Phœnix Park)	3·28	- 0·90	27·1	- 1·4	197
Birr Castle	3·21	- 0·48	34·5	+ 1·5	234
Armagh	2·97	- 0·55	35·8	+ 3·9	225
Valencia	3·68	- 0·30	56·8	+ 0·4	270

* No sunshine figures.

THE SOCIETY FOR THE STUDY OF INEBRIETY.—The annual meeting of this society will be held at 11, Chandos-street, Cavendish-square, W., on Tuesday, April 8th, at 4 P.M. A discussion on "Eugenics and Dysgenics in Relation to Alcohol" will be opened by Dr. C. W. Saleeby.

ANNUAL REPORT OF METROPOLITAN ASYLUMS BOARD, 1911.

NOT the least interesting items of a full and valuable report are those contained in the statistical abstract, and in the report of the Contracts Committee. Some idea of the big scale of the work appears when it is realised that the total expenditure of the Board is over £1,000,000 a year, and the expenditure on supplies of major importance for one year over £250,000.

Scope of Work of the Metropolitan Asylums Board.

This authority deals with imbeciles and with children defective in various ways (it has 46 institutions of one kind or another) as well as with infectious cases, and of these latter 21,208 were treated during the year under review. A glimpse is given, too, of the economy possible to the general and special voluntary hospitals when we read that by close attention to means for reducing cost of supplies the Contracts Committee can save £12,000 a year. The permanent staff of the Asylums Board was 5334, and the average daily number of inmates maintained 13,401.

Among the institutions maintained, the training ship *Exmouth* has a special interest, dealing efficiently with boys sent by boards of guardians and sending them on largely into the navy or into the mercantile marine. On Jan. 1st, 1911, there were 697 boys on board, and during the year 320 were discharged, 40 per cent. of them to the Navy.

Another interesting institution is the large children's hospital, Queen Mary's Hospital for Children, Carshalton, which dealt during the year with nearly 2000 patients. A very large proportion of these were suffering from tuberculosis in some form (381 cases); another group consists of 251 cases of marasmus, anæmia, or debility, and a third of 66 cases of otorrhœa. The only other large items are 39 cases of bronchitis, 23 of enteritis, 62 of epidemic diarrhœa, 28 of eczema, and 21 of impetigo—173 in all. It is instructive to note what a large proportion of these conditions are dependent on bad housing and poverty conditions generally, and what a very large proportion of expense, therefore, would have been saved had these conditions been better. Medical inspection of schools has revealed quite clearly that most of the cases mentioned above come from the homes known to be worst circumstanced.

The year 1911 saw the beginning of two great changes in the work of the Asylums Board. By the first the casual poor of the metropolis were during this period transferred to this central authority with the idea of their dealing with them in a systematic and comprehensive manner. But we must wait for the 1912 report for an account of the measures undertaken. The second change was the handing over of all persons defective in mind, whether "mentally defective" or "imbecile," to the one authority—the Asylums Committee of the Board. The colony at Darenth will in the future be an industrial colony, reserved entirely for improvable cases. It may be mentioned in this connexion that a Local Government Board Order authorises the Asylums Board to admit "feeble-minded persons" up to 21 years.

Queen Mary's Hospital has established a medical gymnasium for remedial gymnastics, and appointed a special "massage sister" to give treatment to cases and instruction to nurses. Reading of the many admirable institutions and special developments of work, we cannot help feeling a regret that all of this complex machinery should be behind the barrier of the Poor-law.

Treatment of Ringworm and Ophthalmia.—Medical Supplement.

The report on ringworm treatment at the Downs School shows that whereas the average duration of stay of cases before X ray treatment was 19 months, it is now 3·6 months, and so many more cases can be treated that part of the accommodation is used as a convalescent home. The record of the ophthalmia schools is not so encouraging. Promising results have been obtained by the treatment of trachoma with carbon dioxide snow, but the stay of some cases runs into five years.

The medical supplement to the report, edited by Dr. E. W. Goodall and Dr. F. M. Turner, contains an account of one year's experience of Dr. R. Milne's inunction treatment of scarlet fever (without isolation) as carried out by him at Dr.

Barnardo's Homes, and an account of the "treatment of scarlet fever on aseptic lines." The reports on both experiments are sufficiently encouraging to justify a further trial of these methods. Dr. Milne's treatment means a considerable saving of expense.

The statistics of laparotomies for four cases of perforation in enteric fever and three cases of supposed perforation are given; one of each classes of case recovered. Details are displayed in the form of two tables.

The whole report is of such great value and of so much immediate importance to all Londoners in particular that we must express a mild regret that it has not been edited with a more alert eye to the publicity it so thoroughly deserves, and from which the intelligent general reader has so much to gain.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

ELECTION OF PRESIDENT.

A COMITIA was held on March 17th, Sir THOMAS BARLOW, Bart., K.C.V.O., the President, being in the chair.

The PRESIDENT delivered the annual address, in the course of which he reviewed the present condition of the College and the more important events which had occurred during the past year. He referred to the honours which had been conferred on Fellows, Members, and Licentiates of the College, and to the awards of medals and other distinctions. After drawing attention to the lectures which had been delivered during the year he detailed the various gifts which had been made, making mention of the valuable collection of stethoscopes which had been presented by Mrs. Theodore Williams. The President reminded the College of the alteration in certain by-laws which had been effected, especially the alteration which now permits Licentiates to assume the courtesy title of "doctor." After mentioning that the examination buildings had been completed, he gave a brief outline of the steps and recommendations made by the College in relation to the National Insurance Act. The President then referred in appropriate terms to the 18 Fellows who had died during the year:—John Dixon Mann, William Ogle, Augustus Drake, Thomas Houghton Waters, William Murrell, Reginald Edward Thompson, John Ebenezer Ranking, Andrew Duncan, Frank Montague Pope, Frederic Bagshawe, Edward Alfred Birch, Charles Theodore Williams, James Lewis Siordet, James Barclay Montgomery, Balthazar Walter Foster (first Lord Ilkeston), William Carter, Alfred Baynard Duffin, and William Howship Dickinson.

Sir WILLIAM S. CHURCH, on behalf of the College, thanked the President for his address and for the way in which he had conducted the very arduous business of the College during the past year.—The PRESIDENT expressed his thanks to the College and vacated the chair.

The election of President then took place, and Sir Thomas Barlow was re-elected by a large majority.

The Senior Censor (Dr. S. J. Sharkey) delivered the insignia of office to the President, who gave his faith to the College and thanked the Fellows for having re-elected him to the office.

The thanks of the College were returned to Mrs. Theodore Williams for the gift of stethoscopes mentioned in the President's address.

After further business the President dissolved the Comitia.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN the 96 English and Welsh towns with populations exceeding 50,000 persons at the last Census, and whose aggregate population at the middle of this year is estimated at 17,852,764 persons, 8672 births and 5817 deaths were registered during the week ended Saturday, March 15th. The annual rate of mortality in these towns, which had been 17·3, 18·0, and 17·4 per 1000 in the three preceding weeks, further declined to 17·0 per 1000 in the week under notice. During the first eleven weeks of the current quarter the mean annual death-rate in these towns averaged 16·9, against a corresponding rate of 17·5 per 1000 in London during the same period. The death-rates in the several towns ranged from 8·3 in Edmonton, 8·4 in Leyton, 10·2 in Ilford, 10·3 in Walthamstow, and 10·5 in Eastbourne, to 23·3 in Stockton-on-Tees, 24·4 in Plymouth, 24·8 in Stoke-on-Trent, 25·1 in Walsall, and 25·9 in Wigan.

The 5817 deaths in the 96 towns were 133 fewer than the number in the preceding week, and included 464 which were referred to the principal epidemic diseases, against 506 and 439 in the two preceding weeks. Of these 464 deaths, 229 resulted from measles, 83 from whooping-cough, 69 from infantile diarrhœal diseases, 51 from diphtheria, 23 from scarlet fever, and 9 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases was equal to 1·4, against 1·5 and 1·3 per 1000 in the two preceding weeks. The deaths attributed to measles, which had been 243, 263, and 209 in the three preceding weeks, rose to 229, and caused the highest annual death-rates of 1·6 in Birmingham, 1·7 in Walsall, 2·2 in Wolverhampton, 2·4 in Barrow-in-Furness, 2·9 in Wigan, 3·0 in Swindon, 4·2 in Newport (Mon.), 4·7 in St. Helens, and 8·3 in West Bromwich. The deaths referred to whooping-cough, which had been 78, 78, and 68 in the three preceding weeks, rose to 83, and included 31 in London and its suburban districts, 11 in Liverpool, 6 in Stoke-on-Trent, 5 in Manchester, 4 in Bristol, and 3 in Nottingham. The fatal cases of diarrhœa and enteritis (among infants under 2 years of age), which had been 81, 76, and 81 in the three preceding weeks, declined to 69; 18 deaths occurred in London, 6 in Birmingham, 4 in Stoke-on-Trent, 4 in Liverpool, 4 in Bolton, 3 in Manchester, and 3 in Burnley. The deaths attributed to diphtheria, which had been 51, 52, and 54 in the three preceding weeks, were 51; of this number 5 were registered in London, and 3 each in Stoke-on-Trent, Birmingham, Manchester and Swansea. The deaths referred to scarlet fever, which had been 19, 29, and 18 in the three preceding weeks, rose to 23, and included 4 in Manchester, 3 in London, 3 in Birmingham, and 3 in St. Helens. The fatal cases of enteric fever numbered 9, against 10, 8, and 12 in the three preceding weeks.

The number of scarlet fever patients under treatment in the Metropolitan Asylums and the London Fever Hospitals, which had steadily declined from 2112 to 1617 in the eleven preceding weeks, had further fallen to 1556 on Saturday, the 15th inst.; 164 new cases were admitted during the week, against 180, 183, and 160 in the three preceding weeks. These hospitals also contained on Saturday, the 15th inst., 944 cases of measles, 912 of diphtheria, 302 of whooping-cough, and 46 of enteric fever, but not one of small-pox. The 1526 deaths from all causes in London were 58 fewer than the number in the previous week, and were equal to an annual death-rate of 17·6 per 1000. The deaths referred to diseases of the respiratory organs, which had been 387, 453, and 403 in the three preceding weeks, were 405, and were no fewer than 181 in excess of the number recorded in the corresponding week of last year. The deaths attributed to influenza, which had been 36, 25, and 40 in the three preceding weeks, further rose to 53 in the week under notice.

Of the 5817 deaths from all causes in the 96 towns, 176 resulted from various forms of violence and 423 were the subject of coroners' inquests. The causes of 50, or 0·9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified in London, Leeds, Bristol, West Ham, Bradford, Hull, Newcastle-on-Tyne, Nottingham, and in 65 other smaller towns. The 50 uncertified causes of death included 15 in Birmingham, 5 in Liverpool, 3 in Warrington, and 2 each in Dudley, St. Helens, Southport, Blackburn, Sheffield, South Shields, and Gateshead.

HEALTH OF SCOTCH TOWNS.

In the 16 largest Scotch towns, with an aggregate population estimated at 2,259,600 persons at the middle of this year, 1207 births and 816 deaths were registered during the week ended Saturday, March 15th. The annual rate of mortality in these towns, which had been 18·7, 20·7, and 19·9 per 1000 in the three preceding weeks, further declined to 18·8 per 1000 in the week under notice. During the first 11 weeks of the current quarter the mean annual death-rate

in these towns averaged 19·4, against 16·9 per 1000 in the 96 large English towns during the same period. Among the several Scotch towns the death-rates ranged from 7·8 in Kirkcaldy, 8·8 in Falkirk, and 8·9 in Perth, to 20·6 in Glasgow, 24·1 in Coatbridge, and 25·7 in Hamilton.

The 816 deaths from all causes in the 16 Scotch towns were 46 fewer than the number in the preceding week, and included 86 which were referred to the principal epidemic diseases, against numbers steadily rising from 65 to 85 in the four preceding weeks. Of these 86 deaths, 50 resulted from whooping-cough, 17 from infantile diarrhœal diseases, 9 from diphtheria, 6 from measles, and 4 from scarlet fever, but not one from enteric fever or from small-pox. These 86 deaths from the principal epidemic diseases were equal to an annual death-rate of 2·0, against 1·4 per 1000 in the 96 large English towns. The deaths attributed to whooping-cough, which had been 50, 55, and 49 in the three preceding weeks, were 50, and included 39 in Glasgow, 4 in Leith, and 2 in Edinburgh. The deaths of infants (under 2 years of age) referred to diarrhœa and enteritis, which had been 9, 7, and 15 in the three preceding weeks, further rose to 17; 7 deaths were registered in Glasgow, 4 in Dundee, and 3 in Paisley. The fatal cases of diphtheria, which had been 7, 5, and 12 in the three preceding weeks, declined to 9, and comprised 4 in Glasgow, 4 in Aberdeen, and 1 in Greenock. The 6 deaths attributed to measles were equal to the average in the three preceding weeks, and were all registered in Glasgow. The 4 fatal cases of scarlet fever, of which 3 occurred in Glasgow and 1 in Edinburgh, were equal to the number in each of the two preceding weeks.

The deaths referred to diseases of the respiratory organs, which had been 162, 180, and 185 in the three preceding weeks, fell to 144 in the week under notice; 22 deaths resulted from different forms of violence, against 44 and 30 in the two preceding weeks.

HEALTH OF IRISH TOWNS.

In the 27 town districts of Ireland with an aggregate population estimated at 1,199,180 persons at the middle of this year, 646 births and 539 deaths were registered during the week ended Saturday, March 15th. The annual rate of mortality in these towns, which had been 24·1, 23·1, and 23·2 per 1000 in the three preceding weeks, further rose to 23·4 per 1000 in the week under notice. During the first eleven weeks of the current quarter the mean annual death-rate in these towns averaged 22·1 per 1000; in the 96 large English towns the corresponding death-rate did not exceed 16·9, while in the 16 Scotch towns it was equal to 19·4 per 1000. The annual death-rate was equal to 23·5 in Dublin (against 17·6 in London and 20·6 in Glasgow), 23·7 in Belfast, 27·9 in Cork, 17·8 in Londonderry, 19·0 in Limerick, and 26·6 in Waterford, while in the remaining 21 smaller towns the mean death-rate was 22·6 per 1000.

The 539 deaths from all causes in the 27 Irish towns were 6 in excess of the number in the previous week, and included 38 which were referred to the principal epidemic diseases, against 41 and 38 in the two preceding weeks. Of these 38 deaths, 13 resulted from measles, 11 from infantile diarrhœal diseases, 6 from whooping-cough, 5 from diphtheria, and 3 from enteric fever, but not one from small-pox or from scarlet fever. These 38 deaths from the principal epidemic diseases were equal to an annual death-rate of 1·7 per 1000; in the 96 large English towns the corresponding rate did not exceed 1·4, while in the 16 Scotch towns it was equal to 2·0 per 1000. The deaths attributed to measles, which had increased from 10 to 18 in the four preceding weeks, declined to 13, and included 6 in Belfast and 4 in Newry. The 11 deaths of infants (under 2 years of age) referred to diarrhœa and enteritis were 2 above the average in the five preceding weeks; 5 deaths were recorded in Dublin and 4 in Belfast. The fatal cases of whooping-cough, which had been 8, 11, and 4 in the three preceding weeks, slightly rose to 6, and included 2 in Dublin and 2 in Waterford. The 5 deaths attributed to diphtheria were slightly in excess of recent weekly numbers and comprised 2 in Dublin, 2 in Belfast, and 1 in Londonderry. The 3 fatal cases of enteric fever occurred in Belfast, Limerick, and Galway respectively,

The deaths referred to diseases of the respiratory system, which had steadily increased from 104 to 156 in the five preceding weeks, declined to 136 in the week under notice. Of the 539 deaths from all causes, 178, or 33 per cent., occurred in public institutions, and 7 resulted from different forms of violence. The causes of 15, or 2·8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; in the 96 large English towns the proportion of uncertified causes of death last week did not exceed 0·9 per cent.

THE SERVICES.

ROYAL ARMY MEDICAL CORPS.

THE undermentioned Captains to be Majors: Patrick G. Hyde (dated March 22nd, 1913); Frederic W. Lambelle, Martyn C. Beatty, Theodore F. Ritchie, Alexander J. Williamson, Ernest V. Aylen, and William Davis (dated March 27th, 1913).

Captain James A. Clark is seconded for service with the Egyptian army (dated Feb. 15th, 1913).

Lieutenant-Colonel G. H. Barefoot has been selected for appointment as Senior Medical Officer on board the transport s.s. *Plassy*, which has left Bombay for England.

Major R. F. M. Fawcett has arrived home for duty from India. Major T. C. Mackenzie, D.S.O., has been appointed to the Eastern Command. Major G. J. Houghton has embarked for a tour of service in the Sierra Leone Protectorate. Major J. B. Clarke, specialist in operative surgery at the Military Hospital, Colchester, has been granted leave of absence on medical certificate. Major C. W. H. Whitestone has been transferred from the Military Hospital at Peshawar Cantonment to Lahore. Major R. L. Argles has been appointed to the Military Hospital at Cahir for duty. Major W. Bennett has been transferred from the Military Hospital at Calcutta to Maymyo, Burma. Major G. B. Stanistreet has taken up duty as Deputy Assistant Director-General at the War Office. Major R. McK. Skinner has arrived home for duty from the Straits Settlements. Major F. M. Mangin has embarked for a tour of service in India. Major C. W. Allport has been granted leave of absence on medical certificate. Major S. G. Butler has been selected for appointment as Specialist in Operative Surgery to the Military Hospital at the Curragh Camp, Kildare. Major E. W. Siberry has arrived home for duty from the South African Command. Major G. J. S. Archer has been appointed for duty to the Southern Command. Major S. O. Hall has been appointed for duty to Karachi Cantonment. Major G. J. A. Ormsby, commanding the Military Hospital at Landour Cantonment, has been transferred for duty to Meerut Cantonment. Major W. M. Power has been appointed for duty to the Eastern Command. Major H. M. Morton has been transferred from the Military Hospital at Pretoria to Capetown. Major W. E. Hardy has been appointed to command the Military Hospital at Cawnpore. Major C. E. P. Fowler, specialist sanitary officer at Headquarters, Gibraltar, has arrived home for duty. Major E. B. Steel has been transferred from the London District to Exeter.

Captain J. W. Houston has been selected for appointment as Deputy Assistant Director of Medical Services (Sanitary Branch) to the First (Peshawar) Division, in succession to Major R. J. Blackham. Captain F. W. Lambelle has taken up duty at the Military Hospital, Maymyo, Burma, as Specialist in Operative Surgery on permanent transfer from the Fifth (Mhow) Division. Captain H. W Long has been appointed to the Southern Command. Captain W. Mathieson has been transferred from the Military Hospital at Potchefstroom to Pretoria. Captain A. E. Irvine has been placed under orders to join the Irish Command on April 4th, and will be appointed to the Belfast District for general duty. Captain W. B. Purdon has been granted eight months' general leave of absence home from India. Captain C. Ryley has joined at Bermuda. Captain J. Fairbairn has left the Dublin District and embarked for a tour of service in the Sierra Leone Protectorate. Captain P. C. T. Davy has been appointed to Chatham. Captain J. H. Spencer has been transferred from the Military Hospital at Upper Topa to Ambala Cantonment. Captain E. B. Lathbury has taken up duty at the Military Hospital, Bareilly. Captain J. B. Grogan has joined at Cosham.

Captain W. J. Weston has been appointed to hold medical charge at Haulbowline Island, Queenstown. Captain V. G. Johnson has been appointed to Dover. Captain C. McQueen has arrived home for duty from South Africa. Captain A. B. Smallman has been transferred from the London District to the Aldershot Command. Captain A. L. Otway has been selected for appointment as Specialist Sanitary Officer to the Southern Command. Captain D. G. Carmichael has embarked for a tour of service in India. Captain A. A. Sutcliffe has been transferred from the Military Hospital at Chester to Carlisle for general duty. Captain T. S. Eves has taken up duty at Lucknow Cantonment. Captain M. O. Wilson has been placed under orders for a tour of service with the Aden Brigade.

Lieutenant E. C. Stoney has been transferred from the Military Hospital at Meiktila Cantonment to Bhamo, Upper Burma. Lieutenant A. S. Cane has been appointed to the Military Hospital at Kirkee Cantonment. Lieutenant J. M. Elliott has been transferred from Hilsea to the Military Hospital at Portsmouth. Lieutenant R. E. Porter has been appointed to the Cork District. Lieutenant J. M. Weddell has taken up duty at the Military Hospital, Fyzabad.

INDIAN MEDICAL SERVICE.

The King has approved of the promotion of the following officers of the Indian Medical Service:—Lieutenants to be Captains: Mozaffer Din Ahmed Kureishi (dated Oct. 24th, 1912); Rustam Hormasji Bharucha, Framroze Jamsetjee Kolapore, Edward Galwey Kennedy, Robert Forrester Douglas MacGregor, Arthur Lewin Sheppard, Paul Knighton Gilroy, Joseph Arthur Alexander Kernahan, Maurice Lionel Corrie Irvine, Ernest William O'Gorman Kirwan, John Valentine Macdonald, George Lawrence Duncan, Anath Nath Palit, Hubert Alan Hirst Robson, and Kalyan Kumar Mukerji (dated Jan. 29th, 1913).

SPECIAL RESERVE OF OFFICERS.

Royal Army Medical Corps.

Lieutenant Arthur H. Habgood to be Captain (dated March 22nd, 1913).

Cadet Ivan Lindley Waddell, from the London University Contingent, Officers Training Corps, to be Lieutenant (on probation) (dated Feb. 14th, 1913).

William Henry Johnston, late Cadet Sergeant Royal College of Surgeons in Ireland Contingent, Officers Training Corps, to be Lieutenant (on probation) (dated Feb. 26th, 1913).

TERRITORIAL FORCE.

Army Medical Service.

Colonel Thomas M. Dawson, on vacating the appointment of an Assistant Director of Medical Services of a Territorial Division, resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform (dated March 19th, 1913).

Lieutenant-Colonel Robert Jackson, from the 3rd West Lancashire Field Ambulance, Royal Army Medical Corps, to be Colonel, on appointment as an Assistant Director of Medical Services of a Territorial Division (dated March 19th, 1913).

Royal Army Medical Corps.

3rd West Lancashire Field Ambulance, Royal Army Medical Corps: Major William B. Cockill to be Lieutenant-Colonel (dated March 19th, 1913).

Welsh Border Mounted Brigade Field Ambulance, Royal Army Medical Corps: Lieutenant William Smith resigns his commission (dated March 22nd, 1913).

2nd Northumbrian Field Ambulance, Royal Army Medical Corps: The undermentioned Lieutenants to be Captains (dated Dec. 3rd, 1912):—Arthur C. H. McCullagh and George R. Ellis.

4th London General Hospital, Royal Army Medical Corps: Thomas Crisp English to be Captain, whose services will be available on mobilisation (dated March 4th, 1913).

Sanitary Service.

Lieutenant-Colonel Nathaniel E. Roberts, Sanitary Officer of a Territorial Division, resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform (dated March 19th, 1913).

Major David Smart, from the List of Officers attached to Units other than Medical Units, to be Major on appointment as Sanitary Officer of a Territorial Division (dated March 19th, 1913).

For attachment to Units other than Medical Units.—William Ernest Lloyd Elliott to be Lieutenant (dated Feb. 1st, 1913).

Attached to Units other than Medical Units.—Lieutenant William E. Alston to be Captain (dated Jan. 1st, 1913).

ROYAL HUMANE SOCIETY'S MEDAL.

The committee of the Royal Humane Society has awarded to Captain F. E. Bissell, R.A.M.C., a medal for attempting to rescue a native from the Gongola river, Northern Nigeria.

Correspondence.

"Audi alteram partem."

A CASE OF VERONAL POISONING; RECOVERY.

To the Editor of THE LANCET.

SIR,—I think the following experience may be worthy of publication. On March 8th I was called to a man, aged about 40, who the previous evening, presumably about 6.30 P.M., had taken 125 grains of veronal. It was not discovered till 10 A.M. on the following morning, his bedroom door having to be forced open to get at him. I saw him about 10.45 A.M. I washed out his stomach thoroughly, and as I was not quite sure that he had not had some opium as well, I also washed it out with potass. permanganas, finishing up with the administration by the stomach-tube of some hot coffee and a couple of beaten-up eggs. He remained quite unconscious till the morning of the 11th. With the hypodermic injections of strychnia gr. 1/40 every six hours and the continuous administration of oxygen and rectal feeding I had the satisfaction of bringing him round. I might add the bladder had to be emptied night and morning. It seems a great pity that, in addition to putting veronal on the scheduled list of poisons, the authorities have not made a prescription obligatory before a chemist may supply it.

I am, Sir, yours faithfully,

A. GOLDNEY CHITTY.

Shepherd's Hill, Highgate, N., March 25th, 1913.

CAN ANGLO-SAXONS COLONISE THE TROPICS?

To the Editor of THE LANCET.

SIR,—I have read in THE LANCET of Nov. 30th, 1912, a letter by Dr. Richard Arthur, of Sydney, under this title, in which he asks for information on the effects of the climate on the descendants of Northern Europeans whose forefathers have resided for several generations in the tropics; he presumes that such information could easily be obtained from those who have had experience in such places as the West Indies, British Guiana, &c. There are, however, so many other complicating factors that it is difficult to estimate the exact effect of the climate *per se*. I may here mention a few of these factors.

1. First and foremost there is the part played by the various tropical ailments which at times have so marked an influence on the individual and which must to a certain extent react on the race.

2. All Europeans in the tropics who can afford it take an occasional holiday in a more temperate climate; their children are, moreover, sent for their education and profession to Europe or the States. From my own experience in the West Indies I can state that under such conditions there appears to be very little race deterioration, the periodic stay in a colder climate counteracting any injurious influence the climate might exercise.

3. There are comparatively few families among whose members, after a few generations' residence in the West Indies, there does not occur some admixture of coloured blood. In these islands it is this coloured class which to a large extent fills the various official and professional positions. One cannot help coming to the conclusion that this admixture of coloured blood makes the individual better fitted, intellectually and physically, for permanent residence in the tropics. It is interesting to note that

Dr. Kohlbrugge,[1] who has made excellent observations on the health of Europeans living in Java, comes to the conclusion that "no white race has been able to survive in the tropics unless race mixture takes place." Whether this solution of the problem is desirable or not opens up an intricate and difficult race question into which I need not enter.

4. The European in the tropics who has fallen on evil days soon finds himself in social and moral surroundings from which it seems almost impossible to extricate him. That apathy which life in the tropics seems particularly to engender hangs on him like an incubus, and he rapidly becomes a social wreck or moral degenerate "beyond redemption."

It is quite easy to understand how these various concomitant factors help to mask the effect of the climate itself on the descendants of Europeans residing between Cancer and Capricorn. If one could find any group of Europeans whose forefathers have continuously and permanently resided in the tropics for over 100 years, and in whom no race admixture has taken place, this would help in large measure to solve the question. Such a group of individuals does exist in the island of Barbados, where they form a colony known as the "poor whites." This remarkable and peculiar group of individuals are descendants of some of the early settlers who were colonists by compulsion, prisoners of war banished to the island by Cromwell during the Civil War. The larger number were, however, yokels who had taken part in Monmouth's rebellion and had been condemned by Judge Jeffreys to this exile.

Sir Frederick Treves in his book "Cradle of the Deep" gives a very interesting account of these "poor whites." Speaking of them he says:—

> Their number now is few, but they are a most distinctive people. Long intermarriage, *long living in the tropics*, long centuries of purposeless existence, have left them utterly degenerate, anæmic in mind and body, sapless and nerveless, mere shadows of once sturdy men. The Briton in the West Indies clamours that he must go home from time to time or languish in health. These have never been home since the day when they were thrown out upon the scorching beach to fare as they liked. They have withered and faded, and, like a painted missal which has been bleached of all colour by years of sun, the writing that told who they were has become well-nigh illegible.

Quite apart from these "poor whites" there are still in Barbados the descendants of squires who left England after the Civil War to seek peace or renew their shattered fortunes in this island home. Many of them have kept their stock pure; they show little sign of any mental or physical deterioration. But they and their ancestors have, whenever they could do so, taken long and sometimes prolonged visits to the old country. The son, as were his father and grandfather before him, is sent to England for his education or profession. Intermarriage with fresh European blood occasionally takes place. In this manner any deteriorating climatic influence is in large measure nullified.

I am, Sir, yours faithfully,
FERNAND L. DE VERTEUIL, M.D. Edin., M.R.C.S. Eng.,
Vancouver, B.C., Feb. 28th, 1913. Surgeon, R.N. (ret.).

A QUESTION IN LUNACY CERTIFICATION.

To the Editor of THE LANCET.

SIR,—Although "Tweedle" may be written on the back of both collars, in law there is a difference, and it must be either "Dum" or "Dee." The law permits no compromise and no half-measures, and does not permit the logic of "Alice in Wonderland": "If it was so, it might be; and if it were so, it would be; but as it isn't, it ain't." In my letter I stated that Lunacy orders signed by justices not specially appointed will be invalid unless countersigned by a justice who is specially appointed. Dr. L. Harris-Liston takes exception to this, and asserts that "they are valid and are accepted by the Lunacy Commissioners," but he proceeds to show that they are invalid unless before "fourteen days elapse the order is approved and signed by a judicial authority," and this is the whole crux. He quotes the Lunacy Act, 1891, Section 24 (3), in support of his statement that the order is valid, but this portion of the Act is one which recognises its invalidity, for it definitively provides for the approval and signature of a specially appointed justice, as was stated in my letter in THE LANCET of March 15th, p. 784, and the subsection quoted entirely supports what I then said—viz., that unless within a specific period the order is countersigned and approved it is invalid, and the patient cannot be detained. The Lunacy Act never contemplated that practically two orders should be obtained, one for reception and the other for detention. It is therefore correct, as I stated, that justices other than those specially appointed cannot sign an order for the detention of a private patient, and it is against the spirit of the Act to obtain orders, one of which admits, and the other detains, the former being valid only when countersigned after the patient's reception into an asylum.

Dr. Harris-Liston states he is acquainted with specially appointed justices who were not aware that they had been so "specially appointed." I should like to point out that before any justice is "specially appointed" to deal with lunacy cases he is first asked whether he is willing to serve in this capacity, and it is only after his consent is obtained that his colleagues nominate him at the Michaelmas quarter sessions, or if of the borough, then at their October sessions, and it shows a slackness on the part of any justice thus to "forget" his judicial responsibilities. Some justices even "forget" to attend to any judicial duties whatsoever, and it is only right that slackers should, as they now do, receive a special communication from the Lord Chancellor reminding them of their "forgetfulness" and further requesting that they should show reason why their names should not be removed from the commission. Dr. Harris-Liston states that "practically any J.P. can sign a reception order which can be acted upon." Again this statment is incorrect, as the Lunacy order will be invalid unless it is signed for a pauper by a justice "with jurisdiction" where the patient is, Lunacy Act, 1890, Section 14 (3), and in the case of a private patient he must, as already pointed out, be "specially appointed."

The fact that presumably so well informed a practitioner as Dr. Harris-Liston has failed to comprehend the interpretation of a valid order shows how easy it is to walk into one or other of the many pitfalls of the Lunacy Acts, and in an experience of over 14,000 orders I know there are many. It also demonstrates how you yourself, Sir, fully realise the technicalities of lunacy certification when you consented to publish my reply to "B.A., M.D." in the correspondence section of THE LANCET.

I am, Sir, yours faithfully,
Claybury, March 25th, 1913. ROBERT JONES, M.D. Lond.

PROFESSOR BIEDL'S TREATISE ON "THE INTERNAL SECRETORY ORGANS."

To the Editor of THE LANCET.

SIR,—The strictures in the review of the English translation of Professor Biedl's valuable work on the internal secretory organs, appearing in THE LANCET of March 22nd, p. 833, compel me to reveal the rather amusing inner history of the translation. It is perhaps natural that I should regard some of these strictures as hypercritical, but I hasten to add that, in the main, they are sound and well deserved. And this is how it all happened. In making his contract with the English publisher, Professor Biedl stipulated that he should see the English translation before it went to the press. The first chapter was accordingly sent in carefully typewritten MS. After a considerable interval this was returned endorsed "Durchgelesen und Korrigiert—B." The text was literally bespattered with erasures and corrections, while the margins were heavily decorated with annotations in the professorial style, the professor's English, and red ink. The translator was naturally in despair that her laborious and careful work should thus be so Biedlerised as to make it unintelligible to the English reader. So a respectful but emphatic protest was despatched to Professor Biedl, pointing out the inconvenience occasioned by his corrections. In the meantime the second chapter had reached the Professor. In due course this was returned, likewise "Durchgelesen und Korrigiert. B," similarly besplashed, bemangled, and annotated in red ink, auf ächtester und korrectester pädagogischer Weise, with a letter from Professor Biedl's publishers, which set forth that not only was he, the learned Professor, fully conversant with the English language, but that he was assisted by a "fachmännliche Persönlichkeit," and that, further, it was his

[1] Eugenics Review, April, 1911; quoted in THE LANCET, Nov. 30th, 1912, p. 1528.

intention to exercise the right of correction which his contract with the publisher conferred upon him. And he did. But he failed to realise that even under his contract the last word was with the translator, who, for her own credit and for the sake of an exceptionally valuable work, spent many weary hours in trying to prevent the Professor's highly original and often diverting Korrigierungen from reaching the printer. None of them, in truth, were intended to do so, but if some Germanicisms and curious renderings escaped the final revision of the translator, they remain, not as evidences of carelessness or faulty translation on her part, but as monuments to the learned Professor's sublime confidence in his own knowledge of the English language.

I am, Sir, yours faithfully,

Harley-street, W., March 24th, 1913. LEONARD WILLIAMS.

IONIC MEDICATION IN HERPES ZOSTER.

To the Editor of THE LANCET.

SIR,—I venture to bring to the notice of your readers an account of a case of herpes zoster ophthalmicus which derived much benefit from ionic medication, and which supplements Mr. Angus Macnab's able advocacy of this method in your last issue. The fact that during the five years which have elapsed since the treatment was applied there has been no return of any discomfort is also of interest. It is the case of a gentleman of about 40 years of age whom I saw in consultation with Mr. M. J. Ryan on May 5th, 1908. The patient had an attack of coryza a few days before, and went out before the nasal discharge ceased. The next day he had intense pain over the left eyebrow, a temperature of 102·2° F., and colonies of papules appeared over the frontal, supraorbital, malar, and nasal distributions of the trigeminal nerve. The papules quickly became vesicles, and then pustules, the tissues of the face were much swollen, and the pretragal lymphatic gland, as well as the submaxillary glands, was enlarged and tender. The eye caused some anxiety, as there was much circumcorneal injection and chemosis.

Atropine, warmth (by means of the Japanese muff warmer applied to the lids), and the usual proper procedures were adopted, with the result that on May 21st, being well enough to get about, he went to Bournemouth for change of air. On June 10th he returned complaining of intense neuralgia all over the cutaneous distribution of the left trigeminus; the smallest alteration of temperature caused discomfort, and in all respect his case was identical with Mr. Macnab's lucid clinical description. He was treated by means of a pad of Gamgee tissue soaked in 1 per cent. solution of sodium salicylate, which was laid over the left brow and temple and connected with the negative pole of a battery of dry cells. The positive electrode was applied to the nucha. A current of 10 milliampères was passed for the space of 15 minutes, and this application was renewed on three occasions at intervals of three or four days. After the first ionisation (or cataphoresis, as it was then called) he had a remarkable cessation of pain, and after the second there was no discomfort at all, the two remaining sittings being carried out for assurance sake only. May I also mention that a generation ago the late Sir Benjamin Ward Richardson advocated the use of continuous current electrodes soaked in watery solutions of various medicaments as a valuable method of enhancing the effect of the current?

I am, Sir, yours faithfully,

Harley-street, W., March 25th, 1913. WM. ETTLES.

VITAL STATISTICS AND DEATH CERTIFICATION.

To the Editor of THE LANCET.

SIR,—The constantly high percentage of deaths not certified by a medical practitioner or by a coroner after inquest is an unsatisfactory feature of the Irish returns. The explanation is simple; the remedy is obvious, and should not offer any difficulty of moment in its application. With the exception of cemeteries in the larger towns controlled by the local public bodies, the burial-grounds are practically under no supervision whatever. Where the interment takes place in a churchyard the church authorities, as a rule, satisfy themselves that the claim is in order as to ownership, but I have never heard of a case where the production of a death certificate was asked for or considered necessary. In isolated rural burial places it is still worse; no one has the right to question any burial—it may be the wrong plot; that is a matter for the relatives of the deceased and the rightful owner to settle. I can recall a case where a coffin buried in a churchyard was, owing to a dispute, taken up a few hours later and re-interred in a graveyard four miles away! This could not happen in England without an order from the Home Secretary.

I think the Irish rural and urban councils should take over charge of all public burial places not already under proper control, and that a certificate of death from a medical practitioner or coroner be required by them before interment is permitted. I would also make the councils responsible for the proper care of such places. It is one of the most perplexing phases of Irish character that a people with such veneration for their dead can allow the last resting-place of their kindred to remain from one year to another covered with rank vegetation. Certainly there is no touch of tenderness in their care of "God's Acre."

I am, Sir, yours faithfully,

London, S.W., March 17th, 1913. MARTIN F. CUSACK.

ORAL HYGIENE IN TUBERCULOUS PATIENTS.

To the Editor of THE LANCET.

SIR,—As sanatorium treatment of phthisis is now practically a national charge, the economical and efficient working of these institutions should be regarded as a national duty. Recently a patient was referred to me who had returned much benefited from a sanatorium. The mouth was in the following state. In the upper jaw there were five carious and septic roots. Every one of the other teeth in the upper jaw was more or less severely affected by chronic septic periodontitis or pyorrhœa alveolaris. The lower jaw: The incisors and first bicuspids were encrusted with tartar, the gums swollen, large quantities of decaying foodstuffs being constantly held imprisoned between the swollen gums and the teeth. The second bicuspids were badly affected by chronic septic periodontitis. The test for tubercle bacilli in the sputum must be unreliable in such a case.

It is not necessary that anyone should hold views as to direct infection from the mouth by tubercle bacilli to condemn absolutely the condition of this patient. In the sanatorium his energies had to contend with the depressing effect of the chronic sepsis in the mouth in addition to the phthisis. Such a case as the above ought not to be possible.

I am, Sir, yours faithfully,

Harley-street, W., March 13th, 1913. H. LLOYD WILLIAMS.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST (VICTORIA PARK HOSPITAL).—The annual court of governors was held on March 13th, Mr. Herbert Robertson, chairman of the committee of management, presiding. The number of patients treated during 1912 was the largest in the history of the hospital, there being 169 beds in daily occupation and 10,995 out-patients, the latter making in all 40,238 attendances. It was stated that, apart from the reservation of 35 beds for insured persons sent by Insurance Committees, the only modification of the hospital's rules in consequence of the National Insurance Act consisted in the physicians to out-patients being empowered, in cases which were not urgent or did not require the special treatment afforded by the hospital, to refer insured persons to their panel doctors, but that this provision represented merely an extension of the discretion which the physicians have always exercised in their professional capacity as regards the suitability of cases for treatment at the hospital; no case would be refused except after examination by a physician. When the necessary treatment was beyond that which a general practitioner had usually the facilities for giving, the patients, whether insured or not, would be given the full benefits of the hospital. The committee were taking steps to obtain the recognition of the hospital as a centre for the treatment of tuberculosis for the area which it naturally serves. The committee in their report remark that whatever provisions may exist under the National Insurance Act, it cannot be doubted that as much as ever must remain to be done by the charitably disposed.

MEDICAL PRACTICE UNDER THE INSURANCE ACT.

(BY OUR SPECIAL COMMISSIONER.)

(*Continued from p. 855.*)

IV.—THE INTERESTING POSITION AT READING.

An Old-established Dispensary.

READING was probably among the first provincial towns in England to establish contract practice in an organised manner, not dependent on the individual schemes of benevolent practitioners; but the departure was made solely for charitable purposes. The Reading Dispensary was founded in 1802 for the purpose of assisting the necessitous, and was supported by charitable donations. Then, in the course of time, here, as occurred in connexion with many other similar institutions in various parts of the country, a provident element was introduced. Subscribers to the dispensary were accepted at 1*d.* a week. But as the management and the upkeep of the building were paid out of the old charitable endowments or donations, the whole of the pennies subscribed were spent over drugs and the medical officers. All the patients were not subscribers. The committee of management nominated those persons whom they considered to be worthy recipients of a charity. An annual donation of one guinea enabled the subscribers to secure free medical attendance for four single persons or two families, should illness occur among them during the year. Further, the funds of the dispensary enabled the payment of a guinea extra to those medical men who had been called by members of the dispensary to attend difficult midwifery cases. Thus, it will be seen that even the persons who paid 1*d.* weekly subscription to the dispensary received more than they paid for, and that therefore from first to last the dispensary was either wholly or in part a charitable institution. But in course of time it grew to such large proportion as to give rise at least to some complaints. In 1910 there were 16,303 members of the Reading dispensary, and when the National Insurance Act passed its membership is supposed to have increased to about 18,000. The Reading dispensary had 19 general practitioners and three consultants on its staff, and the appointments were to this extent sought by the profession, that practitioners, when they first came into the town, might have to wait a long time before a vacancy occurred that would place them on the dispensary staff.

A Medical Aid Association: Medical Attendance for less than a Farthing per Week.

But this old-established institution is not the only big medical aid association in Reading. Next in importance comes the Reading Amalgamated Friendly Societies' Medical Association. This is an amalgamation of local branches of various Friendly Societies, such as the Foresters, the Sons of Temperance, &c. They employ two medical officers, and complaints have been made against this association by other members of the medical profession, who find in particular that the subscription to the club is a degradation to medical practice. The adult male and female members used to pay 4*s.* a year, and only 3*d.* per quarter for one child, 6*d.* for two children; 8*d.* for three children; 10*d.* for four children; 11*d.* for 5 children; 1*s.* for six and more children. Thus the farthing per week for medical attendance, which was the figure that some of the employers of the medical profession at Gillingham set before them as an ideal, was beaten at Reading in the case of the children. Nevertheless, even at this extraordinarily low rate of payment the income of the association before the National Insurance Act came into force was estimated at £1700 to £1800 a year. They employed two medical officers and paid them £250 each. They also provided a house, which may be counted as the equivalent to £100, and there was also an annual bonus somewhat exceeding £90, but never attaining the figure of £100. The two medical officers therefore received in cash or its equivalent £345 a year each. The medical officers, it must be added, were also provided free of charge with a conveyance and a locumtenent, the latter for six weeks in the year. Nor had they anything to pay for management and the dispensing of drugs. But there was a great deal of work to be done. One of the former medical officers of this association assured me that during a recent epidemic he had seen 90 cases of measles in one single day. There was only one other source from which the poorer classes at Reading obtained medical advice before the National Insurance Act came into operation. Medical officers were engaged and paid by the factory owners, notably Messrs. Huntley and Palmer.

Then and Now.

Such was the situation before the Act, and it remains to explain the changes that have been effected by the new legislature. Of course, the first thing to be desired and anticipated is the abolition of medical service at less than a farthing a week. This, however, has not occurred. The Association of Friendly Societies yet survives. Its medical officers having refused to serve, it offers new comers somewhat better terms; but the farthing a week still remains a payment in some cases. On the front page of the *Reading Observer* there was a large advertisement recently headed in well-set-out type and worded as follows: "Reading Amalgamated Friendly Societies Medical Association. An approved institution to administer medical benefit under the National Insurance Act." Then, in larger type, comes the sentence: "An efficient medical service." No names of medical officers are given, but this procedure is nevertheless remarkably like the public advertisement of medical men (doubtless without their will and knowledge but by the action of their employers), and seems to me to supply just such a case as the General Medical Council has recently directed attention to.[1] In the advertisement the scale of entrance fees followed and contributions from members of Friendly Societies who are "exempted persons," and for the wives and families of "insured persons." Under the latter heading is the following: "Children under 13 years of age. First child 6*d.* per quarter; every additional child 3*d.* per quarter." This is an improvement on the old and scandalous tariff. Still, for the vast majority of children only 3*d.* a quarter will be paid, and this is rather less than a farthing a week. Many of the members are now insured persons, and the association circularised their members asking them to insure according to the Act through their society. They may have hoped to get something like £1000 per annum in this way. The red card need not be signed by a panel doctor if handed over to the association, and this saved members some trouble. When thus yielding up their red cards many of them did not understand that they were losing their right to the free choice of a medical attendant. Henceforth they would have to accept whatever medical officer the association could manage to import into the town, though throughout England experience often proves such importations to be failures. Indeed, it is very frequently only the failures who allow themselves to be thus imported and will endure the obloquy their action entails. Occasionally these organisations do succeed in securing the services of a really good man; and these few successes greatly help to save the situation for the clubs. This was notably the case at Reading before the agitation resulting from the Act.

The Fighting Rule.

At first the hope was entertained that the Insurance Act would be the means of putting an end to organisations that sweated the medical profession and made their medical officers attend children for less than a farthing a week. The British Medical Association suggested that the Reading Division, which includes the county borough of Reading, Newbury and Hungerford, Bradfield, Wokingham, Ascot, Henley, Easthampstead and Sandhurst, should constitute a Public Medical Service. The service was open to all qualified practitioners, and all were expected to join either as acting or as honorary members, and all were to take the same pledge. Every medical man in the area joined the Public Medical Service, excepting the officers of the Friendly Societies Association.

The members of the Reading Medical Service have subscribed to the following:—

Outside contracts: No member shall take or continue to treat any patient on contract terms, the Postal Service excepted, at the same rate as, or at a lower rate than, the subscriptions sanctioned by the Central Committee of the Service.

No member shall contract to provide medical attendance and medicines for a society other than a medical service approved by the British Medical Association.

No member of the Public Medical Service shall meet in consultation, give anæsthetics for, or otherwise assist in practice a medical

[1] THE LANCET, March 22nd, 1913, p. 861.

practitioner who does not conform to the rules of this or other medical service approved by the British Medical Association, except in a case of urgent necessity, which the member shall at once report to the secretary of the central committee.

At the same time a wage limit was proposed.

The Profession Buy up the Dispensary.

Before anything could be done on these lines it was, however, first of all necessary to deal with the old-established Reading Dispensary and its staff of 19 medical officers. A large number of the workpeople who subscribed to the provident side of the dispensary were about to become insured persons. The Act gave free choice of medical attendant and a higher scale of remuneration than was possible for the dispensary when it charged its subscribers only 1*d.* per week. Then the Act also interfered with the dispensing, which was an important feature of the work done by the dispensary. The medical staff of the dispensary felt they must resign at least that portion of their work which dealt with the insured, but as it was not possible to abandon all the non-insured and the women and children who relied on the dispensary, it occurred to the medical practitioners that the wisest course would be to own the dispensary. Only 23 members of the dispensary had applied to become an approved society. No one seemed to understand the Act or what was taking place in connexion with it. The staff of the dispensary resigned in a body, giving, however, six months' notice and offering at the same time to take over the whole institution. They guaranteed to pay rent for the building that belonged to the dispensary. They said that they would employ the existing staff of clerks and others at the same salary they were receiving and manage everything themselves. This step involved considerable financial liabilities. The Reading Dispensary and its appurtenances were worth about £1000. It was decided to convert the Borough of Reading Public Medical Service into a limited liability company. This service was to come into existence on Jan. 15th, that is to say, on the same day as medical benefit became due under the Act. The idea was to supplement the Act by providing for those who were not included within the scope of the Act.

The Local Practitioners become a Company Limited.

The Insurance Commissioners took exception to the term Public Medical Service, as it sounded like something organised in opposition to the Act, and finally, though some other reasons must have prevailed with them, refused to have anything to do with the organisation. The title Public Medical Service, in face of the disapproval of the public authorities, was eventually abandoned, and the organisation was finally registered as the Borough of Reading Medical Society, Limited. This, however, was not done before first consulting the General Medical Council as to the ethical position of those who thus became a trading society. The British Medical Association refused to pronounce any opinion on the scheme. In fact, as one of the Reading practitioners pathetically described the situation to me, "None of the leaders led." They had been told, he said, by the British Medical Association to form "public medical services," but this move may be all very well in theory, but yet difficult to carry out when no indication is given how to create corporate bodies, with a legal standing, to carry on medical practice on professional lines. An organisation must possess funds; and in this case, as the old dispensary had to be bought, quite a large sum was required. In whom was this money and property to be vested? In the end a company was formed with an issue of 2000 £1 shares. Articles were drawn up so that this should not become a trading, a speculating, or a dividend-seeking company. The first rule, therefore, was that the company was formed for the sole purpose of enabling the members of the medical profession to exercise their calling as a corporate body. Every reputable medical man was welcome to become a member on taking one or more shares; but those who could afford to take a number of shares were not for that reason to have greater voting power than those who took fewer shares. Some took as many as 50 shares each, but their sole purpose was to help the profession, for not only do they get no increased voting power, but they do not receive larger dividends, and this for the very simple reason that no dividends whatsoever are payable. It is not a society run for profit. This self-denying ordinance has not prevented the profession from taking up enough shares to float their society and meet all the expenses.

The Wage Limit for the Non-Insured.

The question of wage limit for the uninsured was met. After some nine months of constant meetings, discussions, and negotiations had been devoted to the question a uniform rate had been arrived at by the local profession, and included variations according to local conditions. This rate was adopted. Thus the lowest rate is among the agricultural labourers in the Hungerford neighbourhood. There the charge for medical aid for an entire family is equal to one week's wages per annum. In the borough of Reading the wage limit for non-insured persons is £2 a week. A public announcement was made that on and after Jan. 15th, 1913, the Reading Dispensary and all private medical clubs would cease to exist. To-day at Reading all the clubs and medical aid societies and the various forms of contract work that used to prevail have been swept away. There are instead the persons who are insured under the Insurance Act, those who have enrolled themselves as subscribers to the Medical Society organised by the profession, and the members of the Federation of Friendly Societies. Will this latter association be able, with two recently imported medical officers, and armed with the single weapon of cheapness, to hold its own? Well, I think it has a chance.

Judging from what used to be the charge and what still obtains elsewhere, it seems to me that the subscription to the Reading Medical Society is rather high—not too high for the work done, but too high for some of those who may be expected to pay for it. I see a possibility that the Reading Medical Society may have to do, with the eternal benevolence of the medical profession, work for nothing in some cases. The wife pays 1½*d.* a week, and 1*d.* per week for each of two children when the average weekly income does not exceed 1 guinea per week. It is true that if there are more than two no further charge is made. Widows pay a little less, and those who have higher incomes up to £2 pay more. With these higher charges the old charity is eliminated. Nevertheless, there was such a rush to join the society formed by the united medical profession that at first two policemen had to regulate the traffic. The old Reading Dispensary had some 18,000 members, including recipients of charity. The new Reading Medical Society, Limited, had in the first days of its existence to issue 6321 books. As many of these books cover an entire family they represent a population of some 18,000 non-insured persons; and yet domestic servants are not included, for they come under the Act.

The Contracting-out Policy.

When the general drift of the Insurance Act was known, the opposition of the Reading practitioners was wholehearted and unanimous. The then medical officers employed by the Amalgamated Friendly Societies' Medical Association signed the declaration against the Insurance Act, though they were punished for so doing by being dismissed from their posts. Other two medical officers were imported to fill their places, though one of them had hardly arrived when he, in his turn, was dismissed. The newcomers had to pledge themselves to have nothing to do with the British Medical Association, and the members of the latter Association undertook not to meet the new arrivals. On Dec. 13th the Reading practitioners proposed to the British Medical Association to advocate the contracting-out policy which the Association adopted on the ensuing Jan. 13th. In the meanwhile, at Reading, a circular was sent to all insured persons advising them to claim their right to contract out, and a form was enclosed for this purpose. Hundreds of insured persons followed this advice, but the Insurance Committee absolutely refused to grant permission, though there were at least a few cases that should have been considered. The town also was placarded with large posters explaining that it was possible to contract out under Section 15-3 of the revised regulations. Several other towns have copied these posters. The medical men of Reading spent a good deal of money in this way, and the opposition to the Act was so solid that there was not a single name on the panel even on Jan. 6th.

On Jan. 2nd Mr. Lloyd George met various Insurance Committees and instructed the Reading Insurance Committee to issue immediately an advertisement for a salaried medical practitioner at £500 a year to treat insured persons, with the right of limited private practice

among the families and dependents of insured persons. This was a tempting bait, for there are some 27,000 insured persons at Reading out of a population of 87,317 for the old borough and close upon 100,000 for the extended borough. For this population there are about 50 practitioners, and all are now united, as has been shown. A few of them, however, were in these days timorous, for they depended almost exclusively on contract practice. There was the danger that if Mr. Lloyd George's advice was followed the imported salaried practitioners might jeopardise the Reading Medical Society, Limited, that had just been so successfully established. Advertisements, it was said, asking for candidates had already been published, probably in Scotch and Yorkshire papers. Then came an invitation from the Insurance Committee asking the Local Medical Committee to meet them. Very correctly foreseeing the difficulty of two large bodies holding a serious discussion, the medical men proposed a meeting of a fully empowered subcommittee from both bodies. When the two bodies met, the medical representatives made it a primary condition that a wage limit of £2 a week should be established for all insured persons. This was strenuously opposed. Then the representatives of the Insurance Committee conferred privately, and finally compromised by agreeing to a wage limit of £2 10*s.* a week. This is not of much good practically, as very few insured persons earn that sum; still it had the merit of establishing the principle. It was also decided that the number of medical representatives on the Medical Subcommittee under the Act should be raised from three to five, as it is often very difficult for medical men to attend. Having won these points, peace was proclaimed and the medical delegates promised a sufficient panel. Within two days 35 out of the 44 local practitioners went on the panel, though one or two have subsequently withdrawn. This being settled, the Insurance Committee attempted to repudiate the wage limit their delegates had accepted, but were defeated, and the wage limit was confirmed by a large majority of the Insurance Committee. The remarkable success in establishing at Reading a public medical service under the name of a Medical Society, Limited, and in enforcing a wage limit on insured and uninsured persons is due to the great confidence and friendly feeling prevailing among the members of the medical profession, and to their good fortune in securing the services of devoted and most able secretaries.

(To be continued.)

BRISTOL AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

The University of Bristol and its "Scandal."

REFERENCE has been made already in these columns to the controversy provoked by the liberality with which the council of the University of Bristol distributed honorary degrees at the recent installation of Lord Haldane as Chancellor. As has been stated, the area of controversy has unhappily widened, owing largely to the great interest in the matter displayed by a certain section of the press. It seems ludicrous to those who know how small the importance of the whole matter really is that Members of Parliament should have been asked questions about it in the House of Commons. There is no doubt that some of the degrees ought not to have been conferred in any circumstances; some of the selections displayed a want of taste and of the academic sense. But this was the worst that could be said of them; and to drag in all kinds of personal accusations against the good faith of persons who have given a good part of their lives on behalf of university education in Bristol, as some of the critics have not hesitated to do, was a piece of gross exaggeration and inaccuracy. The latest examples of this kind of thing have come from a quarter where it might least have been expected. A junior member of the teaching staff of the University saw fit to write to the public press without consulting his colleagues or complaining formally to any official body, declaring that the way in which the degree list was drawn up was but one example and outcome of a general oppression of the educational staff by the lay officers of the University. Other events in the recent history of the University were quoted as examples of the same thing. These charges aroused a good deal of indignation among the teaching staff, who published a repudiation declaring that their relations with the council had never been other than cordial. The accusations were, however, repeated by their author in an interview with a journalist, and they appeared once again in the form of questions in the House of Commons. Here they were treated with scant respect by Mr. Pease, to whom they were addressed; and in so far as they contain anything to which a definite reply can be given, they have been shown to be inaccurate in letters which the Vice-Chancellor and one of the professors sent to the press.

Bristol Hospitals and Representation of the Working Classes.

At a conference to which delegates from various working-class organisations were invited it was determined to promote the formation of a Bristol Workers' Medical Institution Fund, in which the subscriptions of all workers should be concentrated for the purpose of being forwarded to the various medical institutions, with the object of obtaining representation for the workers upon the management bodies thereof. Working men have for some time contributed considerable sums to the hospitals, and they naturally feel that they ought to have some voice in the management of institutions in which their money is spent. It would be a pity, however, if the spirit of the discussion were at all representative of the general attitude of working men towards the hospitals. The chairman said that the object of the movement was to remove the "stigma of charity" from those who availed themselves of the hospitals' services, showing a profound ignorance as to the conditions under which professional services are given in such institutions. Such misunderstandings will doubtless disappear if the working men of Bristol secure the representation which they desire on the governing bodies of the hospitals.

Didworthy Sanatorium.

The tenth annual meeting of the subscribers of the Didworthy Sanatorium was held on March 17th, under the presidency of the Mayor of Plymouth. The report states that the institution now contains 60 permanent and seven temporary beds. During 1912 the patients admitted numbered 237, as against 189 in 1911. The average daily number of patients was 48. Sixty-two cases were admitted in the first stage of pulmonary tuberculosis, and of these about half were practically cured. 106 patients were in the second stage of this disease, of whom 12 were discharged relatively cured, 42 very much improved, 42 improved, and 10 *in statu quo* or worse. Sixty-nine patients were in the third stage, and of these two were discharged relatively cured; three patients in the third stage died in the sanatorium. Since Didworthy was opened 1078 cases have been admitted. The financial statement showed that income amounted to £4100 and expenditure to £3480.

The Value of the Notification of Measles and Whooping-cough.

At the last meeting of the Plymouth borough council Mr. W. P. Swain, in supporting a recommendation from the sanitary committee that measles and whooping-cough should be made notifiable diseases, stated that at present about 500 children were absent from school on account of measles, and 18 deaths had occurred from that disease since Jan. 1st, 1913. Some time ago the council had adopted the notification of measles and whooping-cough, which was continued for five years, but was then discontinued for financial reasons. During the five years of notification the mortality of measles was reduced by 50 per cent., at a cost of under £100 a year. The proposal of the sanitary committee was carried by 19 votes to 14.

The Salaries of District Medical Officers.

In consequence of the expectation that the Insurance Act will reduce the work of the district medical officers, suggestions have been made to reduce their salaries. The Tavistock (Devon) board of guardians recently wrote to the Local Government Board about such reduction. The Local Government Board, in reply, informed them that they "did not consider the salaries of medical officers resident in their district could be reduced without the consent of the officers, unless the appointments or contracts were on such terms as to reserve the guardians the right of altering the salaries." The Local Government Board further suggested that if the guardians considered the duties had diminished, and that the remuneration was now excessive for the work done, the

guardians should approach their officers with the view of some reduction by arrangement.

The Health of Taunton.

The medical officer of health for Taunton, Dr. H. J. Alford, in his annual report for 1912, states that the corrected death-rate was 12·9 per 1000, the birth-rate 19·3 per 1000, the zymotic death-rate 0·8 per 1000, and the infantile mortality 93·1 per 1000.

The Health of Barnstaple (Devon): 75 per cent. of Unvaccinated Children.

Dr. H. C. Jonas, medical officer of heath for Barnstaple, in his annual report for 1912, states that the death-rate was 15·64 per 1000, the birth-rate 20·40 per 1000, and the infant mortality 77·70. Dr. Jonas referred to the pollution of the river Taw by the Barnstaple sewage, the whole of which is discharged, untreated, with the tidal portion of the stream. He further stated that during the past three and a half years practically 75 per cent. of the children born were unvaccinated.

March 26th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Inclusive Fee in Medicine.

A CONFERENCE of delegates from the business committees of Edinburgh and Glasgow Universities General Councils was held in Perth on Saturday last to consider the question of the applicability of the inclusive fee to the Faculty of Medicine in the Scottish Universities. After a full discussion it was remitted to a subcommittee to prepare a reasoned statement showing in detail the financial and administrative difficulties which have been urged against the adoption of the inclusive fee in medicine, the probable effect of such an inclusive fee on the extramural schools, and of the uniformity of the inclusive fee on the progress of the individual universities. It was further resolved to recommend the General Councils of the Universities of Edinburgh and Glasgow to request their respective university courts to amend the regulations of inclusive fees in arts, science, and law, so that extramural students might have their fees refunded without waiting until the end of the term.

The Working of the National Insurance Act.

A letter has been sent to a correspondent by the National Health Insurance Commission (Scotland) dealing with the allocation of funds in connexion with the mileage question, the subject being raised because the sum of £50,000 set aside for Great Britain, excluding the sum of £10,000 for the Highlands of Scotland alone, had not yet been apportioned as far as the Lowlands of Scotland were concerned. The Commissioners now state that the share of this £50,000 which will accrue to the Scottish Lowlands amounts to £16,000, which is quite distinct from the £10,000 mentioned above, and is additional to the special half-crown which has been voted by the Treasury per insured person for the cost of medical attendance and treatment. The total mileage grant to Scotland will therefore be £26,000 per annum. It has already been decided that the Highland £10,000 will be administered by the Scottish Insurance Commissioners, and it is probable that the remaining £16,000 will be dealt with in the same manner. The precise method of distribution cannot be fully determined until such detailed returns come on as will enable an accurate estimate of the requirements of the respective districts in the Lowlands and of the individual practitioners to be made. The letter states that the Scottish Commissioners are fully alive to the importance to medical men of the whole subject of mileage, and will be glad to receive their coöperation in making arrangements for the distribution of the money when the allocation of insured persons to doctors on the panel is complete. With reference to a statement issued from London in December last that the Government had agreed to make special grants in certain areas on account of difficulties of locomotion, the Commissioners say that these are the grants which have been indicated above. With regard to the case of holiday-makers and convalescents who go for a short period to health resorts, the Commissioners say that they are giving this subject their careful consideration; they recognise that the arrangement prescribed under Regulation 22 of the Medical Benefit Regulations is likely to work out unequally as between doctors in the town and in the country, and as between doctors in different towns and in different counties. They therefore propose to modify existing arrangements in such a way as to make them acceptable to the medical profession as a whole.

The Scottish Clerks Association and the Scottish Commissioners under the National Insurance Act.

The Scottish Commissioners have decided that the arrangement entered into between the Scottish Clerks Association and the members, whereby on payment of an extra sum per week the member may employ a non-panel doctor, and receive grants for the payment of his fees from the society funds, cannot be recognised under the Act. This decision has given rise to much dissatisfaction, and it is understood that further steps will be taken by the society to get this decision altered.

Leith Hospital.

Dr. H. L. Watson Wemyss has been elected assistant physician to this hospital, in room of Dr. John Eason, resigned.

Centenary of Dr. David Livingstone.

The University of Glasgow, as was fitting, took part in the celebration of the centenary of David Livingstone last week. Principal Sir Donald MacAlister presided over a large gathering in the Bute Hall representative of the various scientific, religious, municipal, and academic bodies in the city, and there was in addition a large number of the general public present. Professor Gregory, D.Sc., F.R.S., delivered "an appreciation of Livingstone as an explorer." In connexion with the centenary a fund has been started in Glasgow which among other objects has as its aim the establishment of a Livingstone scholarship for the training of medical missionaries in Anderson's College Medical School, where Livingstone himself acquired his medical training in Glasgow.

The National Insurance Act and the Royal Infirmary, Dundee.

At the quarterly meeting of the governors of the Royal Infirmary, Dundee, held on March 10th, the directors unanimously decided to make no change in excluding any person from indoor or outdoor treatment, hitherto given to the sick or hurt poor, unless it was found that any abuse of the privileges so freely given were taking place. The continuance of the demand upon the services of their maternity nurses was as pressing as it was unlooked for, and the directors were glad to go on with that good work for the benefit of those requiring help and to train nurses and students in that branch of practice. To give efficiency the nursing staff had been increased during the year, and owing to that and to the fact that the in-patient and maternity department were likely to increase, the directors were considering the question of more accommodation for nurses. More accommodation was also needed for children. In the main the subscriptions had been well maintained, and while too short a time has elapsed to come to definite conclusions regarding the effect of the Insurance Act, it has been found, broadly speaking, that the work of the in-patient and maternity departments has been increased, and the work in the out-patient department lessened.

Presentation to Dr. W. D. Forsyth, Braemar.

On the evening of March 10th a large number of Dr. Forsyth's friends presented him with a timepiece as a tribute of their warm esteem, on the occasion of his leaving Braemar to take up practice in York.

March 25th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Extension of Medical Benefit to Ireland.

THE Committee appointed by the Chancellor of the Exchequer to inquire into the question of the extension of medical benefit to Ireland has arranged to meet again in Dublin to-morrow (March 26th) and further medical evidence is requested in order to try to fix the rates of remuneration. It is said that the Committee, or a majority of the members, will recommend that medical benefit be extended to Ireland, and that it shall include the families of the insured. The real difficulty, however, is to fix the scale of remuneration,

as there is a very wide difference of opinion between the estimate of some of the Committee and the ideas of the medical profession.

The Advisory Committee, Insurance Committees, and Local Medical Committees.

The Insurance Commissioners have notified the restoration to the Advisory Committee of the following medical practitioners who had resigned their seats at the request of the Conjoint Committee: Dr. P. T. O'Sullivan, Cork; Dr. T. Donnelly, Dublin; Dr. T. B. Costello, Tuam; and Dr. J. S. Darling, Lurgan. A number of medical vacancies on Insurance Committees has also been filled on the nomination of the Conjoint Committee. The Commissioners have at length notified their recognition of Local Medical Committees in those areas in which they have been formed—six county boroughs and 20 counties, and they invite the formation of medical committees in the remaining areas. Insurance Committees are directed to confer with Local Medical Committees in carrying out the scheme of medical certification.

The Insurance Commissioners and Medical Certification.

On March 18th a conference of representatives of the Insurance Committees of Ireland was held in Dublin at the invitation of the Insurance Commissioners to discuss the scheme of medical certification put forward by the Commissioners.[1] On March 22nd a communication was issued to all registered medical men in Ireland informing them that it is proposed, out of the Exchequer grant-in-aid of £50,000 recently voted by Parliament, to provide the cost of all medical certificates required by Approved Societies and Insurance Committees in Ireland. The Commission has agreed to set up for the purpose the panel system, and invites medical men now to join it in the particular boroughs or counties in which they reside. The arrangements for the distribution of the grant will begin on April 13th, 1913, and will continue till Jan. 14th, 1914, inclusive, or such longer time as may be agreed upon between each medical practitioner and the Insurance Committee, subject to the approval of the Commission. Practitioners wishing to join the panel are instructed to notify their willingness to do so to the clerk of the Insurance Committee on or before April 1st next, and forms of agreements are also sent, which have to be executed and forwarded to the Committee. The Commissioners lay down the conditions which are to be observed in case of any dispute arising under the scheme. The Insurance Committee have no power to remove a practitioner from the panel. Any question in dispute between two practitioners on the panel arising out of their position in that capacity, will be referred to the Local Medical Committee. Questions arising between doctor and patient may be referred to a Committee of Complaints, consisting of two doctors chosen by the Local Medical Committee and two representatives of insured persons, and the chairman, chosen from and by the Insurance Committee. The investigation will be in private session. If the Insurance Committee find the insured person at fault they may transfer him to another practitioner; if the practitioner is found to be at fault they may transfer the insured person to another practitioner, but they cannot remove the practitioner from the panel, nor inflict any penalty upon him beyond the transfer of the insured person. In communicating the scheme to the press the Commissioners make a general statement, which requires considerable qualification to be strictly accurate. It is that the Conjoint Committee has approved of the scheme. The approval of the Conjoint Committee was limited to the principle of the scheme, while at the same time the Committee pointed out that the remuneration offered was quite inadequate. Moreover, the Committee declared that it had no power to pledge the profession to the acceptance of any scheme, and could give no guarantee that the scheme would be accepted by the profession. As a matter of fact, the proposals have called forth much protest from the profession both in town and country areas, and it is very doubtful whether the panels will be filled. Again, in their letter to medical practitioners the Commissioners make an equally questionable statement—viz., that the Insurance Committees have agreed to administer the scheme. The conference summoned by the Commissioners had no power to bind the Committees to any line of action, and at the time the Commissioners issued their letter few, if any, Insurance Committees had had an opportunity of examining the proposals. Even apart from the question of remuneration, the scheme as proposed is still incomplete. It must be recognised that a number of practitioners will decline to put their names on a panel, and yet they will occasionally be called on to attend insured persons. No provision has been made for payment in such cases, although the Commissioners lay it down that "where there is a doctor in attendance on the patient only that doctor shall give a certificate." Again, no provision has yet been offered for payment for certificates given by members of hospital staffs.

March 25th.

[1] THE LANCET, March 8th, p. 722, Scheme No. 2.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The New Hôpital de la Pitié.

THE President of the Republic has inaugurated the new Hôpital de la Pitié, which is erected on a site between the Boulevard de l'Hôpital, the Rue Jenner, and the Rue Bruant. A central avenue, a third of a mile in length, starting at the principal gate in the Boulevard de l'Hôpital, traverses the site from end to end. To the left of this avenue lie the out-patient buildings, which are very spacious. Moreover, at the gate there are isolation rooms for the reception of such cases as the gate officials may suspect to be contagious. On the left also of the principal avenue are the administration buildings, the quarters for the medical internes, and the dispensary and linen store. Further on, the avenue passes between the medical services on the left and the surgical on the right. The buildings are of three storeys. While reserving large open spaces on the 61,000 metres of site available, the new Pitié is yet one of the three great hospitals of Paris. It contains 988 beds, without counting cots, and thus comes next after the Lariboisière, which has 1200, and the Tenon with 1020. The two buildings devoted to medicine contain each three services, one on each floor. They both have the form of a letter H, of which the transverse limb is occupied by the general services—office, linen, and laboratory of the chief of the service. One of the vertical branches is reserved for men, and comprises on each floor 40 beds and three isolation rooms; the other, for women, contains 32 beds and eight isolation rooms. The surgical buildings are less extensive, and comprise only three services. Each of these services is subdivided into two sections, one reserved for patients suffering from septic wounds or abscesses, the other for those with tumours or simple fractures who are entirely free from contagion. Each of the sections contains independent operating and dressing rooms provided with all modern improvements. Beyond these buildings is the maternity ward, which has a special entrance in the Rue Jenner and constitutes a service entirely independent of the hospital. It comprises 85 beds. Further on is the accommodation for the male staff, and still further the mortuary. The kitchens, offices, and accommodation for the female staff are situated behind the surgical service. For the nurses is provided a sitting-room with a piano, and there is hardly anything left for them to desire. In the kitchens are 16 steaming pots. There are six steam generators from which hot water is pumped into the services. A formol disinfecting chamber for the clothing of the patients, subterranean passages connecting the different services, and numerous ingenious appliances complete this new hospital.

Human Ovarian Grafting.

At the Academy of Medicine on March 4th M. Tuffier read a communication in which he showed that in certain cases in which extirpation of the uterus and its appendages appeared necessary the uterus might nevertheless be left and the ovaries grafted to the abdominal wall. The problem of suppressing infectious lesions and re-establishing menstruation—that is to say, of restoring the physiological equilibrium of the woman—is thus solved. Out of 19 patients on whom M. Tuffier had operated in this way, in 16 the menses reappeared in from three to seven months, and have persisted respectively for periods varying from 5½ years to 11 months. In all these women the troubles consequent on

castration have disappeared and have not returned. It is not ovulation apparently, but menstruation, which is necessary for the elimination of the toxins whose retention is said to provoke all the accidents associated with a premature menopause. Human ovarian grafts may suffice to re-establish menstruation in a woman who has preserved her uterus, and may save her from the accidents due to the premature suppression of menstruation.

A Merited Reward.

The silver medal of the Carnegie foundation, with an honorarium of 2000 francs, has been awarded to Dr. Carpentier, an interne of the hospitals of Rouen, who, while hardly recovered from an attack of scarlet fever, was on April 1st last stricken with a most severe diphtheritic angina, contracted during repeated efforts at intubation on a child affected with diphtheria. After a painful convalescence, Dr. Carpentier remains permanently affected with lameness and atrophy of the right arm and leg.

Wounds from Modern Weapons.

Various communications by surgeons who have taken part in the Balkan war led M. Ferraton to show, at the Société de Chirurgie on March 12th, some examples of wounds produced by modern weapons and to set forth his views on the treatment of the wounded in war. M. Ferraton showed the bayonets in use in the different European armies, the various rifle bullets, fragments and bullets from shrapnel, and fragments of a melinite shell. He then briefly described the principal forms of wound produced by these weapons and projectiles, respectively in the soft parts, the bones, and the joints. Referring to the statistics contained in the medical reports on the great wars, M. Ferraton showed that they were erroneous, though inevitably so, for they revealed only the wounds observed in the hospital services and did not take into account those found upon the battlefield. They thus failed to appreciate fully the gravity of certain traumatisms. However this may be, if one takes into consideration what has been observed in the later wars, the general rule in military surgery, at least in the stations near the field of battle, should be an attitude of expectancy towards wounds of the limbs (except in cases of shattering, of gangrene, or of septicæmic invasion) and in wounds of the chest, as well as in wounds of the abdomen, save where there is internal hæmorrhage or extensive visceral perforations. In wounds of the cranium, on the other hand, surgical intervention seems called for, if the surgeon has a sufficient equipment. This intervention should at first be limited to the toilet of the bone—the raising of depressed fragments and the removal of accessible splinters, but without any deep investigation of the wound.

Statistics of the Medical and Allied Professions in France.

The Direction of Assistance and Hygiene to the Ministry of the Interior has published the personal medical and pharmaceutical statistics of France for 1911. The departments that occupy the chief places are: La Seine, 4393 medical men, 1125 dentists, 1329 midwives, and 1789 pharmacists; Le Nord, 811 medical men, 97 dentists, 422 midwives, and 523 pharmacists; La Gironde, 614 medical men, 123 dentists, 389 midwives, and 400 pharmacists; Le Rhone, 585 medical men, 117 dentists, 304 midwives, and 322 pharmacists; Les Bouches du Rhone, 575 medical men, 72 dentists, 345 midwives, and 250 pharmacists. The departments lowest on the list are: Les Hautes-Alpes, 29 medical men, 2 dentists, 33 midwives, and 14 pharmacists; Le Haut-Rhin, 32 medical men, 7 dentists, 46 midwives, and 23 pharmacists; La Lozère, 39 medical men, 2 dentists, 30 midwives, and 19 pharmacists. Finally, for the whole of France the figures are: 20,809 medical men, 2848 dentists, 13,066 midwives, and 11,585 pharmacists.

March 24th.

BUDAPEST.

(FROM OUR OWN CORRESPONDENT.)

Penetrating Wounds of the Abdomen.

Dr. Widder, who has been sent to the Balkan war by the Hungarian Red Cross Society, reports two interesting cases of penetrating wounds of the abdomen. One of the patients was a man 22 years of age, in whom there was a protrusion of the intestines through the gunshot wound, and in the protruded intestine there was a wound 4 centimetres long. The organs were replaced and the abdominal wall was closed with sutures; the subsequent process of the case was uneventful, the patient leaving the hospital recovered two weeks after the injury. In the other case there was a protrusion of the pancreas. This was first resected, then rendered thoroughly aseptic, and replaced. As in the first case, the subsequent course was uneventful. In treating other penetrating wounds in the Servian military hospitals Dr. Widder, as a rule, found it advisable not to close the wounds tightly, but to leave a corner for the introduction of iodoform or sterilised gauze. The prognosis of such wounds was more favourable at the present time than it used to be, and the earlier the cases were taken in hand the better.

"Certified Milk."

The continually increasing scarcity of milk makes it more and more difficult to procure thoroughly pure milk for infants and sick people. In Hungary there are no laws regulating the production of milk, and for this reason the "Budapest Medical Circle" has undertaken the making of contracts with dairy farmers, binding them to supply wholesome milk under strictly prescribed conditions, and to bring it to market in sealed bottles bearing the seal of the Medical Circle. This milk will be sold under the name of "certified milk." The production of this milk is supervised by experts employed by the Medical Circle. The cows and the milk will be subject to examination by the authorities of the Milk Laboratory of the Veterinary High School, and chemical and bacteriological examinations will also be made daily in the Bacteriological Institute of the city of Budapest. Milk must be taken only from cows not reacting to tuberculin, and it must not be more than 15 hours old when supplied to the consumer. The certified milk is sold for 46 hellers per litre—that is, about 2½*d.* per pint.

The Number of Medical Men in Europe.

Statistics which have been published in the *Orvosi Hetilap* assert that the number of medical men in the whole of Europe amounts to about 100,000. With respect to their distribution as between various nations, England is said to have both the largest absolute number and also the largest proportion relatively to the population—namely, 28,900 altogether and 7·8 per 10,000 inhabitants. Bulgaria has the smallest number of practitioners—only 0·47 per 10,000 inhabitants. In Germany the total number of practitioners is 22,500, or 5·6 per 10,000 inhabitants; in France the total number is 19,800, giving 5·1 per 10,000 inhabitants; and in Italy the total number is 18,270, giving 5·6 per 10,000 inhabitants. Among the capital cities of Europe the proportion of medical practitioners to inhabitants is greatest in Brussels—namely, 27·1 per 10,000; while in Amsterdam it is 7·1 per 10,000.

General Meeting of State Circle Medical Officers.

In Hungary the counties are divided into circles, each circle including on an average 12 villages, and having an area corresponding to a radius of 10 or 15 miles. The larger villages within the circle are provided with their own village practitioners. In each circle one circle medical officer (Kreis-Arzt) is employed and paid by the State for attending residents in the circle who are certified to be indigent, and for acting as medical officer of health on a small scale. The salary of a circle medical officer is between £65 and £75 a year, and has not been raised for the last 30 years, although the cost of living has increased by about 80 per cent. even in agricultural districts. In 1908 the salaries were nominally raised by £10 or £15 a year, but as a set off against this concession these medical officers have been entrusted with attendance on workmen under the Workmen's Compensation Act. At the same time the introduction of a Pension Bill was promised them, but five years have now elapsed without either any rise of salary being granted or the Pension Bill introduced. Their patience being exhausted by this long-continued policy of inaction on the part of the Ministry of Public Health, the circle medical officers held a general meeting in Budapest in the end of February. At this meeting they resolved that they would first send a memorandum to the Hungarian Medical Association, and then, with the support of the Association, they would send a deputation to the Minister of Public Health in order to ask for definite information as to when the raising of salaries will take place and when the Pension Bill will be introduced.

Post-graduate Courses in Hungary.

Up to last year post-graduate courses of a fortnight's

duration were held twice a year in the two University cities of Budapest and Klausenburg. This year, however, owing to the great number of applicants who came forward, it was feared that the crowding of the classes would interfere with successful practical teaching and the courses have consequently been extended to four weeks. The Minister of Public Instruction has announced that he will give every facility to country practitioners desirous of attending these courses; they get free board while in Budapest, and even their travelling expenses to the University town and home again are repaid them. One-week courses are held on subjects which are important from the practitioner's point of view, such as the medical treatment of infants, the pathology and treatment of syphilis, and the newer methods of internal therapeutics. The one-week course on industrial accidents and diseases will be particularly interesting for the insurance medical officers. In addition to the instruction given in the University cities, post-graduate courses lasting for two weeks will be held in five large towns, where the lectures will be delivered by the chief physicians and surgeons of the hospitals.

March 18th.

Obituary.

ARTHUR JOHN WALLACE, M.D., C.M. EDIN.,

CONSULTING GYNÆCOLOGIST TO THE ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

THE news of the death of Dr. Arthur John Wallace, which occurred on March 17th, at St. Anne's-on-Sea, after a short illness, was received in Liverpool with much regret. Dr. Wallace was the eldest son of the late Professor John Wallace, gynæcologist to the Liverpool Royal Infirmary, and was born at Dalston in 1867. He received his medical education at the University of Edinburgh, and at University College, Liverpool. He graduated as M.B. and C.M. at the University of Edinburgh in 1889, obtaining the M.D. degree in 1896. In 1889 he was appointed to the resident staff of the Liverpool Royal Infirmary, and later to the Holt scholarship in anatomy and surgery at University College, Liverpool. After a period of gynæcological study in Paris and Berlin he was appointed demonstrator, and later assistant lecturer, in gynæcology and obstetrics at University College, Liverpool. He had held the post of surgeon to the Hospital for Women, in Shaw-street, for the past 15 years, and for the same period had served on the staff of the Maternity Hospital. In 1908 he was elected president of the North of England Obstetrical and Gynæcological Society. Only a few weeks ago he was appointed honorary consulting gynæcologist to the Royal Southern Hospital. His loss will be keenly felt by a large circle of friends and professional brethren.

PHILIP FRANK, M.D. BERLIN, F.R.C.P. LOND.

Dr. Philip Frank, whose death on March 17th was briefly recorded in THE LANCET of last week, was born in 1830 at Manchester. After studying in England and Germany he obtained the M.D. degree of the University of Berlin in 1853. Three years later he became a Member of the Royal College of Surgeons of England. About this time he joined the Army Medical Service, and after some service abroad he became attached to the teaching staff, from which he resigned to take up private practice. In 1859 he obtained the Membership of the Royal College of Physicians of London, and in 1871, at the height of his professional career, he was elected to the Fellowship. He had then been in practice for some time at Cannes as a consulting physician, and his opinion was greatly esteemed throughout the Riviera. During the Franco-Prussian war he left his private practice to join the Anglo-American Ambulance Corps, and was present among other engagements at the great battle of Sedan. At the end of the war he returned to Cannes, and for many years his work among the English visitors and residents as a consulting physician was well known in medical circles. He had many distinguished patients, and in all he inspired confidence and affection. When at length he retired owing to failing health his loss was keenly felt, as apart from his scientific attainments his attractive personality had made for him many friends. He came to live in London, and there has died at the age of 82. He married in 1871 a daughter of the second Marquess of Westminster, who died in 1899, and leaves one daughter. Dr. Frank was a Knight of Grace of the Order of St. John of Jerusalem and held several foreign honours.

Sir Dyce Duckworth writes: "The passing of this distinguished and much-loved member of our profession leaves a blank in the lives of all who had the pleasure and privilege of his friendship. I will only tell for the benefit of those who knew little or nothing about him what manner of man he was. This might be concisely summed up by describing him as a highly educated and experienced clinician, whose character was as guileless and lovable as imagination can conceive it. A friendship of about a quarter of a century enables one to form a just estimate on these points. I often met him at Cannes, where he was the adviser and friend of a large and important body of British residents. Since his retirement to London he has never ceased to study all the new developments in medicine and surgery, and has busied himself in many good works with a singular modesty. His sudden appearances amongst classes of students at the bedsides of the various clinics were always welcomed, and often he let drop an inspiring suggestion from his copious experiences and regular studies of the best French and German clinical masters. The surgeons can tell of similar visits, and of his enthusiasm in noting the advances of modern surgery. It was surely remarkable and stimulating to witness such keenness in an octogenarian. There was always something fresh and bright about him. The simplicity, sincerity, and charm of his character shone out, and were never altered or ruffled as years passed on. Sympathy and compassion went out of him under cover of constant modesty and self-effacement. He could never have had an enemy, and if he had he would not have recognised him as such. The love and sweetness in his domestic life cannot be told here. Those who knew him well knew what it was. His end came peacefully and with little appreciated suffering. Had it been otherwise he would have borne the burden of it with perfect submission and saintliness. It has been a responsibility to have known and had the friendship of such a man. Those who can support the testimony will regard the enduring memory of Philip Frank as a great privilege. Surely, he rests in peace."

ROBERT HUNT, M.R.C.S. ENG., L.R.C.P. LOND.,

CONSULTING SURGEON TO THE BLACKBURN AND EAST LANCASHIRE INFIRMARY.

ON Wednesday, March 19th, the death from pneumonia occurred at Blackburn, Lancashire, of Robert Hunt, one of its best known medical practitioners, in his fifty-eighth year, after a brief illness of only three days. He came of a prominent Preston family, and was educated at the grammar school there. He acquired at school that devotion to football which for many years made him a distinguished amateur, not only as a county, but as an International player. In his later years he transferred his attention to golf in which he also distinguished himself.

Robert Hunt received his medical education at Owens College, Manchester, taking the M.R.C.S. Eng. in 1877, and the L.R.C.P. Lond. in 1882. After a period of service as accident house surgeon and physicians' assistant at the Manchester Royal Infirmary, followed by the appointment of medical officer to the Monsall Fever Hospital, he was appointed in 1889 honorary surgeon to the Blackburn and East Lancashire Infirmary, a post which he held for 21 years, then passing to the consulting staff. He was a certifying factory surgeon and a court medical referee at Blackburn. He leaves a widow and two sons.

A professional colleague (Dr. R. Y. Aitken) writes as follows: "'Bob' Hunt, as he was affectionately spoken of by his friends, had one outstanding characteristic. This was diffidence about his achievements whether as an athlete or as a surgeon. No one ever heard him speak of his feats as a Rugby international, of his prowess at golf or with the gun. He was one of the best shots in the district. As a surgeon he was conspicuous for sound judgment and his manipulative dexterity was the envy of his colleagues. He was especially good at plastic work and took pleasure in operating for hare-lip and in ruptured perineum cases. His untimely death will leave a blank in the profession in Blackburn which will

be difficult to fill, and the sympathy of all will go out to his widow and two sons in their irreparable loss."

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Otto Pertik, professor of pathological anatomy in the University of Budapest, aged 60. He had been a pupil of Waldeyer and von Recklinghausen, and was looked upon as the leading pathologist in the Hungarian school.—Dr. E. Schiff, *privat-docent* of dermatology and syphiligraphy in the University of Vienna.—Dr. P. Rodari, formerly *privat-docent* of diseases of the stomach in the University of Zürich.—Dr. Teófilo E. Moret, extraordinary professor of ophthalmology in the University of Buenos Aires and senior ophthalmic surgeon in the Hospital Rawson.—Dr. S. Meindersma, an eminent and popular Frisian practitioner, whose surgical skill was frequently invoked by professional brethren throughout the whole province.—Dr. Edward H. Small, lecturer on pædiatry in the Western Pennsylvania Medical College, Pittsburg.—Dr. Wm. C. Wile, formerly professor of diseases of the nervous system and electro-therapeutics in the Jefferson Medical College, Philadelphia.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held recently the following candidates passed in the subjects indicated:—

Surgery.—E. C. Banks (Section II.), Manchester; A. C. Dickson (Sections I. and II.), Guy's Hospital; R. G. Maglione (Sections I. and II.), Manchester; and H. Rimington (Section II.), St. Bartholomew's Hospital.
Medicine.—E. C. Banks (Section II.), Manchester; O. W. D. Steel (Section II.), London Hospital; and S. Zarchi (Section II.), Freiburg and London Hospital.
Forensic Medicine.—F. C. M. Gabites, Edinburgh; G. F. Malden, Royal Free Hospital; and C. E. Reckitt, Guy's Hospital.
Midwifery.—S. H. Andrews, St. Bartholomew's Hospital; L. B. Clarke, Cambridge and St. Mary's Hospital; T. H. Cresswell, Middlesex Hospital; P. R. Cross, St. Mary's Hospital; H. Dudley, University College Hospital; and T. B. Paul, Middlesex Hospital.

The Diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:—E. C. Banks, R. G. Maglione, H. Rimington, and O. W. D. Steel.

VICTORIA UNIVERSITY OF MANCHESTER.—At examinations held recently the following candidates were successful in the subjects indicated:—

THIRD M.B. AND CH.B.

General Pathology and Morbid Anatomy.—W. S. Booth, J. E. Brooks, *Frank Chadwick, F. S. Charnock, J. W. Craw, N. H. Davison, Joseph Fielding, William Halliwell, E. A. Linell, and *Clara A. Lomas. * Passed with distinction.

SECOND M.B. AND CH.B.

M. C. Paterson.
Anatomy.—J. B. Leigh.

DIPLOMA IN PUBLIC HEALTH.

Philip Benington, D. I. Connolly, W. G. Evans, Nicholas Gebbie, George Jessel, R. C. Hutchinson, and Robert Proudfoot.

UNIVERSITY OF DURHAM.—At examinations held recently the following candidates were successful:—

FIRST EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE.

Elementary Anatomy and Biology, Chemistry and Physics.—Hugh John Dingle, College of Medicine, Newcastle-upon-Tyne; Herbert Arnold Lake, University College, London; and William Irving Fitzgerald Powell, College of Medicine, Newcastle-upon-Tyne.
Elementary Anatomy and Biology.—Percy Vernon Anderson, Edgar Frederick Herbert Bell, James Struthers Clark, and Ernest Craig Dunlop, College of Medicine, Newcastle-upon-Tyne; Arthur Idwal Humphreys, Edinburgh University; Charles Gordon Irwin, Thomas Kirsopp, and Harold Mason Leete, College of Medicine, Newcastle-upon-Tyne; and Reginald Stanley Millar, Guy's Hospital, and College of Medicine, Newcastle-upon-Tyne.
Chemistry and Physics.—Stephanie Patricia Laline Hunte Daniel, London School of Medicine for Women; Christopher Thomas Helsham, Guy's Hospital; Donald Henegan, Douglas Ethelbert Hearn, and Patrick Hickey, College of Medicine, Newcastle-upon-Tyne; Malcolm Cyril Joynt, Guy's Hospital; Carl Damien Newman, College of Medicine, Newcastle-upon-Tyne; Harold Sterne-Howitt, Guy's Hospital; and Iskander Soliman, School of Medicine, Cairo, and College of Medicine, Newcastle-upon-Tyne.
Elementary Anatomy.—Frederick Reginald Sturridge, Middlesex Hospital.

SECOND EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE.

Anatomy and Physiology.—Roy Neville Craig, John Alexander Charles, and Lionel Basil Frere, College of Medicine, Newcastle-upon-Tyne; Harold Kingston Graham-Hodgson, St. Thomas's Hospital, and College of Medicine, Newcastle-upon-Tyne; and George Irving, Arthur Edwin Raine (second-class honours), Alfred Smithwaite, Bertram Sergeant, Alfred Cresswell Taylor, and Robert Welch, College of Medicine, Newcastle-upon-Tyne.

QUEEN'S UNIVERSITY OF BELFAST.—At examinations held recently the following candidates were successful in the subjects indicated:—

FIRST MEDICAL EXAMINATION.

Physics.—John F. Ainley, George V. Allen, David D. Anderson, Annie E. E. Beattie, Brice R. Clarke, Janie Clarke, Jane Copes, James Craig, Margaret Crawford, Marion Crawford, William Cupples, John W. Gaston, William Gilmore, Charles Graham, Fred. Hopkins, Thomas F. Ingram, Denis L. Ireland, Stanley M'C. Kirk, John Lascelles, Samuel Lees, John C. Loughridge, Hugh H. M'Clelland, Joseph M'Cormack, Alexander M'D. M'Mullan, Peter Macarthur, Joseph P. O'Kane, John E. Rea, Martin H. Turnbull Henry W. Wild, and Cecil J. A. Woodside.
Chemistry.—John F. Ainley, David D. Anderson, Annie E. E. Beattie, Thomas M. Boyd, James C. Carson, Brice R. Clarke, Janie Clarke, James Craig, Margaret Crawford, William Cupples, Dorothy I. Dobbin, John Dunlop, John W. Gaston, Charles Graham, Fred. Hopkins, Thomas E. Ingram, Denis L. Ireland, John Lascelles, Samuel Lees, John C. Loughridge, Olga R. I. Love, Joseph M'Cormack, Alexander M'D. M'Mullan, Peter Macarthur, Thomas J. Marner, Rupert G. Meyer, Joseph P. O'Kane, Annie M. Orr, William Saunderson, Martin H. Turnbull, Henry W. Wild, and Cecil J. A. Woodside.
Zoology.—Joseph Adams, James Boyd, John H. Davison, Charle A. W. Ramsay, and Thomas Wallace.
Botany.—Samuel T. Alexander, Charles Barton, James Boyd, Marion Crawford, Francis Ewart, Joseph G. M. Leyden, Bernard W. M'Kinney, Matthew O'Kane, Charles A. W. Ramsay, John Scott, and Thomas Wallace.

SECOND MEDICAL EXAMINATION.

Anatomy and Physiology.—Eileen M. Bell, David Corry, Charles F. Davey, Mary E. Henry, John W. McKee, Joseph R. M. MacKenzie, and Frank P. Montgomery.
Anatomy.—John Cullenan.
Physiology.—Albert W. Bourke, Louis Jefferson, William Russell, and James M. Smith.

THIRD MEDICAL EXAMINATION.

Pathology, Materia Medica, Medical Jurisprudence, and Hygiene.—Herbert T. Chatfield, Terence P. McQuaid, and Samuel A. D. Montgomery.
Pathology, Medical Jurisprudence, and Hygiene.—Frank L. Cleland.
Pathology and Materia Medica.—David M. Clements, Frank J. Devlin, Edmond Doherty, E. Crawford T. Emerson, George Gordon, William H. Hardy, David Jamison, Thomas B. McKee, Edward A. Mallon, John C. Robb, John S. Savage, Albert F. L. Shields, Frederick G. Smyth, John K. Stewart, John Warwick, and John C. Wilson.
Pathology and Medical Jurisprudence.—James J. Hanratty.
Medical Jurisprudence and Hygiene.—William K. Campbell and Albert E. M. Carleton.
Materia Medica and Medical Jurisprudence.—Herbert R. Sinclair.
Pathology.—Robert C. McMillan and Edward W. Mann.
Materia Medica.—Thomas Grimson and William MacDermott.

M.B., B.CH., AND B.A.O. DEGREES.

Samuel Acheson, Samuel R. Armstrong, Ernest S. Dixon, Llewellyn D. I. Graham, John R. Henry, John V. Holmes, Frederick Jefferson, Bertram C. Letts, Homer H. C. Lynch, Samuel McComb, John McFadden, Edward McSorley, Ivan W. Magill, William M. O'Farrell, Joseph Patrick, Joseph H. Porter, Adiel E. H. Reid, and Harold V. Walsh.

M.A.O. DEGREE.

Dr. H. B. Steen.

D.P.H. EXAMINATION.

Parts I. and II.—Dr. Thomas Arnold.

FOREIGN UNIVERSITY INTELLIGENCE.—*Basle:* Dr. Adolf Streekeisen, *privat-docent* of forensic medicine, Dr. Emil Villiger, *privat-docent* of anatomy, and Dr. Bruno Bloch, *privat-docent* of dermatology, have been promoted to Extraordinary Professorships.—*Berne:* Dr. Fritz L. Dumont has been recognised as *privat-docent* of Surgery, and Dr. Max Steiger as *privat-docent* of Midwifery and Gynæcology.—*Bonn:* Professor the Countess von Linden, an eminent scientist, has been appointed to the charge of the newly established University Laboratory of Parasitology.—*Frankfort:* It is officially announced that the University will be formally opened in October, 1914.—*Göttingen:* Dr. Max Hauschild has been recognised as *privat-docent* of Anatomy, and Dr. Rudolf Ehrenberg as *privat-docent* of Physiology.—*Munich:* Dr. E. Veiel has been recognised as *privat-docent* of Medicine, and Dr. A. Groth as *privat-docent* of Medical Statistics.—*Rostock:* Dr. M. Wirths has been recognised as *privat-docent* of Ophthalmology.—*Strasburg:* Dr. B. Salge, extraordinary professor in Freiburg, has been appointed to the chair of Pædiatry in succession to Dr. Czerny.—*Vienna:* Dr. E. Steinach, extraordinary professor in Prague, has been appointed to the charge of the new Physiological Department of the Institute of Biological Research.—*Würzburg:* Dr. Ludwig Jacob has been recognised as *privat-docent* of Medicine.

UNIVERSITY OF LONDON: UNIVERSITY COLLEGE.—A legacy of £3000 bequeathed by the late Mrs. Magrath to University College has now been paid and will be used for the establishment of a clinical scholarship open to medical students of the fourth year at University College Hospital.

HARVEIAN SOCIETY OF LONDON.—The next meeting of this society will be held on April 10th, when the Harveian lecture will be delivered by Dr. Arthur P. Luff on the Various Forms of Fibrositis and their Treatment. The society invites to the meeting members of the medical profession who are interested in the subject.

LITERARY INTELLIGENCE.—Messrs. W. B. Saunders Company will publish shortly a revised edition of "The Elements of Bacteriological Technique," by Dr. J. W. H. Eyre. The book has been rearranged and amplified, and a new chapter has been added dealing with the study of animals experimentally infected.

SECOND INTERNATIONAL FIRST AID CONGRESS.—At the first meeting of the British Sectional Committee for the furtherance of the Second International Congress, Lord Londesborough presiding, it was unanimously decided that Great Britain should take no part in the International Congress to be held at Ghent in August next, as that congress was arranged after the fixing of the date of the meeting to be held in Vienna in September, and would tend to diminish the importance of the latter. Invitations have been given to read papers on "first aid" subjects at the Vienna Congress, and if authors were unable to be present their papers would be read for them and subsequently appear in the volume of Transactions. All communications should be addressed to S. Osborn, Esq., F.R.C.S., Constitutional Club, Charing Cross, W.C.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.—The eighty-first annual meeting of the British Medical Association will be held at Brighton from July 22nd to 25th under the presidency of Dr. William Ainsley Hollis. The scientific business of the meeting will be conducted in 15 sections under the following presidents: Dr. J. W. H. Eyre, Bacteriology and Pathology; Dr. J. H. Sequeira, Dermatology; Dr. G. F. Still, Diseases of Children, including Orthopædics; Mr. W. Deane Butcher, Electro-Therapeutics; Dr. R. Sanderson, Gynæcology and Obstetrics; Dr. A. J. Hutchison, Laryngology, Rhinology, and Otology; Dr. R. J. Ryle, Medical Sociology; Dr. E. Hobhouse, Medicine; Colonel James Turton, late Assistant Director of Medical Service, T.F., Navy and Army and Ambulance; Dr. James Taylor, Neurology and Psychological Medicine; Mr. T. H. Bickerton, Ophthalmology; Dr. W. Hale White, Therapeutics and Dietetics; Dr. E. W. Hope, State Medicine; Mr. W. Thelwall Thomas, Surgery; Lieutenant-Colonel Sir William Leishman, R.A.M.C., Tropical Medicine. The honorary local secretaries are Dr. L. A. Parry, 14, North-street, Brighton, and Dr. C. H. Benham 27, Sackville-road, Hove.

CENTRAL MIDWIVES BOARD.—A meeting of the Central Midwives Board was held at Caxton House, Westminster, on March 13th, with Sir Francis H. Champneys in the chair. A letter (addressed to the Chairman) was read asking information as to the payment of sickness benefit on the certificate of a midwife. The Board directed that the reply be that the Board has no jurisdiction to regulate payments under the National Insurance Act, but will forward the letter to the Privy Council and the Insurance Commission for them to deal with. The Board further expressed its opinion that it seemed hard to it that a woman entitled to disablement as well as to maternity benefit in respect of a confinement should be obliged to procure the signature of a medical practitioner when she has exercised her option and has put herself under the care of a midwife. Letters were considered from the medical officer of health for the county of Durham asking the Board's ruling on the question of prohibiting a midwife from attending cases of infectious disease at the same time as she is engaged on midwifery work. The Board decided that the reply be that a woman acting as described would be amenable to the jurisdiction of the Board. A letter was considered from the county medical officer for Hampshire asking whether a midwife may send a pupil under her instruction to attend a case of confinement while she herself is absent at another case. The Board directed that the reply be that in such a case the midwife is answerable. A letter was considered from a certified midwife complaining of midwifery practice by uncertified women in Carnarvon. The Board directed that a copy of the correspondence be forwarded to the Privy Council.

A SOMERSET CENTENARIAN.—On March 13th Mr. James Creedy, of Bristol-road, Bridgwater, celebrated the anniversary of his 102nd birthday.

ASHBY MEMORIAL SCHOLARSHIP (MANCHESTER UNIVERSITY).—Mr. John Morley, M.B., Ch.M. Manch., F.R.C.S. Eng., has been awarded the Ashby memorial research scholarship in diseases of children. He will carry out researches into certain congenital abnormalities in children and their clinical significance.

WORKMEN'S COMPENSATION ACT.—The Home Office has published new editions of the lists of the names, addresses, and districts of certifying and appointed factory surgeons in England and Wales, and in Scotland, revised to Dec. 31st, 1912. Copies can be obtained, price 1s. each, either directly or through any bookseller, from Messrs. Wyman and Sons, Limited, Fetter-lane, London, E.C.

UNIVERSITY OF LIVERPOOL: A CHAIR OF REGIONAL SURGERY.—The council has established a chair of Regional Surgery at the University, and has appointed Mr. William Thelwall Thomas, M.Ch., the Associate Professor of Surgery, to the post. Professor Thelwall Thomas has for many years been closely associated with the teaching work of the medical faculty. He received his medical and surgical education at Liverpool, and is another old student who has obtained a seat on the Senate. His appointment will be widely welcomed, and is a fitting acknowledgment of services rendered to the University over a long period.

PRESENTATION TO A MEDICAL MAN.—Mr. H. J. Godwin, F.R.C.S. Edin., surgeon to the Royal Hampshire County Hospital, was the recipient of a handsome testimonial on March 13th from the members of the Winchester Division of the British Medical Association, of which he is the honorary secretary, and from other medical friends outside the area, as a token of the very valuable services rendered by him on behalf of the profession during the passing of the National Insurance Act. The presentation was made at a luncheon held in the Guildhall, Winchester. The chair was occupied by Mr. H. Maturin.

DONATIONS AND BEQUESTS.—Under the will of the late Lord Tredegar Cardiff Hospital receives £5000, Brecon Hospital £1000, and Newport Hospital £5000.—By will the late Miss Mary Augusta Scott, of South Hampstead, left £1000 to the Royal Free Hospital, Gray's Inn-road, to found a bed "in loving memory of Emma Brandon." Subject to one life interest, she left £1000 to the Northampton General Hospital, in memory of her parents, William and Sophia Scott, and £1000 to the Middlesex Hospital to endow a bed bearing her own name in the cancer ward.—Mr. H. Summers, of Cornist Hall, Flint, has presented the Ashton Infirmary with £1000 for the purpose of endowing a cot as a memorial to his son Gerald.—The Nottingham General Hospital has received a cheque for £1000.

THIRD INTERNATIONAL CONGRESS OF NEUROLOGY AND PSYCHIATRY.—This Congress will be held at Gand, Belgium, from August 20th to 26th, 1913, under the presidency of honour of the Minister of Justice and the Minister for Home Affairs. The Presidents are Dr. Crocq, professor agrégé at the University of Brussels, and Dr. Glorieux, Inspector-General of Lunatic Asylums and Colonies. The Congress will be composed of effective members and associate members. The subscription for the first-named is 20 francs, and for the latter 10 francs. Only the effective members have the right to take part in the deliberations of the Congress. The papers to be read will be printed and distributed before the opening of the session. The recognised languages are French, Dutch, German, and English. Members of the Congress are requested to send the titles of their communications before May 1st, 1913, and a short *résumé*, intended for the press, before July 1st, 1913. The "Bulletins d'Adhésion" and subscriptions should be addressed to Dr. Deroitte, treasurer, Avenue Albert, 192, Bruxelles. Communications in regard to papers and other information should be addressed to Dr. F. d'Hollander, Secretary-General of the Congress, 110, Boulevard Dolez, Mons, Belgium.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Nurses' Registration Bill.

Mr. MUNRO FERGUSON has introduced in the House of Commons a Bill to regulate the qualification of trained nurses and to provide for their registration. It was read a first time.

The Rules and Orders under the National Insurance Act.

An official volume containing all the statutory Rules and Orders under the National Insurance Act up to Dec. 31st is in course of preparation, and will be available in a few days.

Forcible Feeding of Suffragist Prisoners.

A long discussion in the House of Commons on Tuesday, March 18th, turned largely on the forcible feeding of suffragist prisoners. Mr. MCKENNA, the Home Secretary, in defending the action of the prison medical officers in administering nasal feeding in cases where malnutrition resulted, said that it was the duty of the authorities to see that the prisoners were maintained in health and life. It was only in cases where forcible feeding could not be administered on account of the health of the patients that release followed. That was the only alternative to allowing them to starve themselves to death. The right honourable gentleman dealt at considerable length with the case of Miss Lenton. He repudiated the idea that in the process of nasal feeding food had found its way into the lung, and cited medical evidence for the purpose of showing that the illness was pleurisy.

The Easter Holiday.

The House of Commons, owing to the pressure of financial business, was only able to take one day's Easter holiday, Good Friday.

Tropical Diseases Research Fund.

The Report of the Advisory Committee for the Tropical Diseases Research Fund for the year 1912 is issued as a Blue-book. The revenue for the year contributed by the Imperial Government, the Government of India, and various Colonial Governments was £3245, but the expenditure was £3833. The excess was met by drawing on the accumulated balance of the Fund, and Schools of Tropical Medicine have been warned that it will not be possible to repeat in 1913 grants on the same scale. In 1912 the London School of Tropical Medicine received £1533, the Liverpool School of Tropical Medicine £1200, the University of London £750, and the University of Cambridge £350. It was not found necessary to make any grant to the Royal Society from the fund, as other provision has been made for carrying out the research with regard to sleeping sickness under the general supervision of the society. During the year the Committee was consulted on various matters by the Colonial Secretary, including the advisability of the use of salvarsan in the treatment of yaws in tropical colonies. The Committee lay stress on the importance of the regular supply of reports on the anti-malarial measures taken in the colonies, and on the need of continuing these measures. Appended are numerous scientific reports on tropical diseases and research work.

The Mental Deficiency Bill.

Mr. MCKENNA, the Home Secretary, has reintroduced the Mental Deficiency Bill in the House of Commons. It is designed "to make further and better provision for the care of feeble-minded and other mentally defective persons and to amend the Lunacy Acts." The Bill was read a first time. It is understood that the text when printed will follow the lines of the Bill of last year as it left the Standing Committee.

Prisoners (Temporary Discharge for Ill-health) Bill.

In this Bill the Home Secretary seeks power to discharge temporarily from prison prisoners whose further detention is undesirable on account of the condition of their health. Its object is to deal with the case of "hunger-strikers." The Bill, which was introduced on Tuesday, March 25th, was read a first time.

HOUSE OF COMMONS.

MONDAY, MARCH 17TH.

Medical Benefit in Ireland.

Mr. W. O'BRIEN asked the Secretary to the Treasury whether he would give the House an opportunity of reading a report of the proceedings before the Treasury Committee in reference to the extension of medical benefit under the National Insurance Act to Ireland.—Mr. MASTERMAN replied: The evidence taken by the Committee will be presented to Parliament in due course.

Insured Persons and the Supply of Drugs.

Mr. HICKS-BEACH asked the Secretary to the Treasury to state why insured persons who make their own arrangements for treatment by doctors off the panel were not allowed to receive medicine free from chemists on the panel in the same way as other insured persons who were treated by doctors on the panel.—Mr. MASTERMAN answered: Section 15 (3) contemplates that when insured persons are allowed to make their own arrangements for medical attendance and treatment they shall also make their own arrangements for the supply of medicines and appliances. It would be obviously unfair to require chemists on the panel whose remuneration is based on a capitation system and accordingly limited to the sums available, to supply medicines to an unlimited extent on the prescriptions of doctors who have not, like those on the panel, a collective responsibility with regard to the arrangements made for medical benefit in the area.

Deposit Contributors and Sanatorium Treatment.

Mr. HICKS-BEACH asked the Secretary to the Treasury whether a deposit contributor who had received treatment in a sanatorium, and was discharged from there owing to his or her condition being unsuitable for further treatment in the sanatorium, was entitled to receive any other kind of medical relief in his or her home.—Mr. MASTERMAN said in reply: Yes, sir. A deposit contributor discharged from a sanatorium in the circumstances mentioned would be eligible for sanatorium benefit at home, including medical treatment and the supply of medicines and other articles ancillary to such treatment. He would also draw sickness benefit from the money standing to his account.

Imports and Exports of Opium.

Replying to Sir J. D. REES, Mr. BUXTON (President of the Board of Trade) wrote: The total quantity of opium imported into the United Kingdom in 1912 was 556,631 lb., the re-exports of opium in the same year were 163,455 lb., making a net import of 392,176 lb. There were also exported 36,332 lb. of opium, dried and powdered in the United Kingdom. Thus on balance the imports of opium retained in the United Kingdom amounted to about 356,000 lb. During the five years 1908–1912 the imports retained have averaged about 272,000 lb. annually. I understand that this opium is used principally in the preparation of morphia and morphia salts, but there are no statistics available with regard to the total manufacture of these latter. The total exports of morphia and morphia salts of United Kingdom manufacture, however, reached 276,572 oz. in 1912, and these exports must, therefore, have required for their manufacture a considerable proportion of the net imports of opium. As regards the imports of opium derivatives, the only statistics available are those relative to morphia and morphia salts, of which 21,539 oz. were imported, and 1663 oz. re-exported in 1912, leaving a net importation, on balance, of 19,876 oz. I have no information as to how much of the preparations and derivatives of opium retained for use in the United Kingdom are used medicinally and how much for other purposes.

TUESDAY, MARCH 18TH.

Deposit Contributors and Medical Tickets.

Mr. LANE-FOX asked the Secretary to the Treasury whether the National Health Insurance Commissioners had received complaints of the difficulty experienced by deposit contributors in obtaining their medical tickets; why this difficulty had occurred; and whether they were taking steps to remedy it.—Mr. MASTERMAN replied: I am not aware that any difficulty in obtaining medical tickets is being experienced by deposit contributors who are entitled to medical benefit; but there have been numerous applications for tickets from deposit contributors to whom, owing to failure to notify their change of address or to furnish the necessary particulars, it has been impossible to deliver tickets until application was made. If the honourable member has any such cases within his knowledge I should be glad if he would give me particulars.

Free Choice of Medical Man.

Mr. LANE-FOX asked the Secretary to the Treasury whether the National Health Insurance Commissioners had received many complaints from insured persons who were now prohibited from employing their favourite doctor under the National Insurance Act because such doctor had not seen his way to join the panel; and how long it was proposed to restrict the free choice of doctor in such cases.—Mr. MASTERMAN answered: The reply to the first part of the question is in the negative. With regard to the second part of the question, I have nothing to add to the full statement which I made on this subject on Feb. 12th.

WEDNESDAY, MARCH 19TH.

Professional Requirements under the National Insurance Act.

Mr. CASSEL asked the Secretary to the Treasury whether the opinion of the Law Officers had been or would be taken on the question whether the Regulations made by the Insurance Commissioners limiting medical attendance and treatment to treatment of a kind which could consistently with the best interests of the patient be properly undertaken by a practitioner of ordinary professional competence or skill, but denying medical attendance and treatment when the condition of the patient was such as to require services beyond the competence of an ordinary practitioner, were *intra vires*; and whether he was prepared to facilitate steps being taken by which this question might be authoritatively settled by a decision of the High Courts.—Mr. MASTERMAN replied: It would be contrary to practice to indicate upon what advice any Regulations had been framed in regard to any such point as that in the question. I see no reason for any such special action as is suggested in the latter part of the question.

WEDNESDAY, MARCH 19TH.

Hospital Nursing Staffs and the National Insurance Act.

Sir PHILIP MAGNUS asked the Secretary to the Treasury whether the Form 43 (b)/I.C., relating to the procedure to be adopted by members of the nursing staff at hospitals, whereby they were allowed to make their own arrangements for medical benefit, had been forwarded by the Insurance Commissioners or by the Insurance Committee for the county of London directly to any London hospital; and, if so, which.—Mr. MASTERMAN replied: I am informed by the London Insurance Committee that Form 43 (b)/I.C. has been sent out by the Committee directly in the cases of five hospitals and six similar institutions. As soon as application is received by the authorities of any hospital a copy of the form in question is forwarded immediately. The Committee understand that the Nurses' Insurance Society with whom they have been in communication have, however, forwarded to the authorities of all hospitals and similar institutions copies of Form 43 (b)/I.C. supplied to them by the London Insurance Committee.

Sir PHILIP MAGNUS: Has one hospital applied to the London Insurance Committee for these forms and has not received them yet?—Mr. MASTERMAN: I shall have inquiries made. I understood that any hospital which had applied for them had received them.

Sir PHILIP MAGNUS asked the right honourable gentleman to state under what conditions, if any, a member of the resident or visiting staff of a London hospital could have his name placed on the panel for a limited number of insured persons—viz., for nurses and other hospital employees; and whether any hospital doctor must obtain the consent of the other medical practitioners on the panel in order that

the number of insured persons whom he might be required to attend might be limited to members of the hospital staff only.—Mr. MASTERMAN said in reply: The Insurance Commissioners have suggested to Insurance Committees that they should allow medical men to come on the panel for a limited number of insured persons under the following conditions: (1) That provision has already been made for all insured persons; (2) that the other medical men on the panel agree to the proposed arrangement; (3) that the arrangement will not, at all events without the consent of the other medical men on the panel, result in the doctor who is admitted to the panel on these terms having on his list an undue proportion of selected lives, and I understand that arrangements of the kind suggested are being made.

Sir PHILIP MAGNUS: Is the right honourable gentleman aware of the fact that the London Insurance Committee have issued instructions differing essentially from those which he has just described?—Mr. MASTERMAN: I believe that the London Insurance Committee are adopting the suggestion of the Commissioners and are prepared to admit doctors to the panel for a limited number of patients under those three conditions.

Sir PHILIP MAGNUS: Is the right honourable gentleman aware that the London Insurance Committee will admit doctors to the panel for a limited number of patients without reference to the consent of the other doctors on the panel?—Mr. MASTERMAN: If they are admitting medical men for a limited number of patients they have received the consent of the other doctors on the panel.

Clerical Work of Panel Medical Men in Scotland.

Sir GEORGE YOUNGER asked the Secretary to the Treasury whether the Insurance Committees in Scotland had been informed that the clerical work required to be performed by the doctors would be simplified; whether the conditions would be the same as in England; and when the doctors would receive notification of the changes.—Mr. MASTERMAN answered: I understand from the Scottish Insurance Commissioners that they have informed the Insurance Committees in Scotland that a modification of keeping records is under consideration, and that a card system may be substituted for the day-books if the medical men prefer it. Copies of a specimen page of a modified form of day-book and of a specimen card are being distributed to the Local Medical Committees so that their members may indicate their preference. It will be necessary to obtain information as to the wishes of the doctors themselves before it can be stated whether the system ultimately adopted will be exactly the same in Scotland as in England. Doctors will be informed of the details of the new system at the earliest possible date.

Sir GEORGE YOUNGER: Will the right honourable gentleman undertake that the arrangements will be not less generous in Scotland than in England?—Mr. MASTERMAN: Certainly not less generous; acting on past precedents, probably more generous.

The Health of the Army and the Army Medical Corps.

In the course of his annual statement on the army, Colonel SEELY (Secretary of State for War) said: The health of the troops has improved in a remarkable degree. If we take the number of men constantly under treatment in hospital and add those to the number of men treated in barracks we now have a ratio of 31·83 per 1000. In the ten years between 1889 and 1898—that is, before the South African war—the ratio was just short of double that, almost 60 per 1000, so that in this short time we have reduced the number of men under treatment almost exactly by one-half in regard to the various diseases from which soldiers suffer. This means a great increase to our fighting strength. From this wonderful change, due in a great measure to the Royal Army Medical Corps, due in a great measure also to the spread of education, good behaviour, and good morals amongst the masses of our population, the result has been to add thousands of men to our fighting strength, while actually to decrease the expense which falls on the State. The number of men discharged from the army as invalids for the six causes of invaliding are all lower than they have been since statistics were taken. That is a gratifying record, and while it reflects credit on the Army Medical Corps, it also reflects credit in a great degree upon the troops themselves.

THURSDAY, MARCH 20TH.

The Assistants of Medical Men and Panel Practice.

Mr. KEIR HARDIE asked the Secretary to the Treasury whether doctors who were engaged as assistants and had covenanted with their employers not to open a practice within a given radius during a certain term of years were thereby debarred from serving on the National Health Insurance Panels within the areas specified in their contracts.—Mr. MASTERMAN answered: Unless debarred by the terms of the private contract the doctors referred to would be entitled to be placed on the panel.

Uninsured Members of Friendly Societies and Medical Treatment.

Sir CLEMENT KINLOCH-COOKE asked the Secretary to the Treasury whether he was aware that members of Friendly Societies who were 65 years of age and upwards on July 15th last, or who through permanent disablement at that date were unable to become insured persons under the Act, were called on to pay increased contributions for medical attendance and treatment, and that doctors were refusing to accept such members except at a fee at least equal to that paid for insured members; and whether he would consider the possibility of paying the difference out of moneys provided by Parliament.—Mr. MASTERMAN answered: I am aware that while some societies have been able to make satisfactory arrangements for the medical attendance of their uninsured members, in some districts the medical men are demanding higher rates of remuneration than the societies are prepared to give. I cannot understand why the fact that doctors are receiving an additional grant in respect of insured members should make them demand not only the increase of about 50 per cent., which societies are generally prepared to give, but an increase of nearly 100 per cent. in the rates which they have hitherto been receiving for their uninsured patients.

The Inspection of Pharmacies.

Mr. TYSON WILSON asked the Secretary to the Treasury whether any inspectors of pharmacies had been appointed; if not, whether it was proposed to appoint any; and, if so, whether those appointed would be fully qualified chemists.—Mr. MASTERMAN said in reply: The question of the appointment of inspectors of the kind referred to in the question is under consideration, and I am not yet in a position to make an announcement.

Medical Scheme of the Scottish Clerks' Association.

Mr. JAMES HOGGE asked the Secretary to the Treasury whether he was now in a position to make a statement about the special medical scheme under the National Insurance Act of the Scottish Clerks' Association.—Mr. MASTERMAN replied: The special medical scheme of the Scottish Clerks' Association is an arrangement whereby the member calls in his own medical man, who renders his bill in the usual way to the patient. The association refunds the amount of the bill in so far as it does not exceed a certain fixed sum per visit. The Commissioners are legally advised that this scheme is not the system within the meaning of Section 15 (4) of the National Insurance Act. The association formally applied for approval of the scheme as a system on Dec. 20th last and was informed on Jan. 8th that the application could not be considered as the scheme was not a system within the meaning of the subsection.

MONDAY, MARCH 24TH.

The Grants to Scottish Universities.

Mr. MUNRO FERGUSON asked the Secretary to the Treasury whether, although three out of the four Scottish Universities had agreed to fulfil the conditions attached to the payment of the additional grants, no part of these grants had yet been paid; and whether these grants would now be paid in full to these three universities.—Mr. MASTERMAN wrote in reply: The answer is in the affirmative. Payment is being made immediately.

Small-pox at Tilbury Docks.

Mr. CROOKS asked the President of the Local Government Board whether he was aware that five cases of small-pox were reported amongst the crew of the steamship *Gloucestershire*, which arrived at Tilbury Docks from Rangoon on March 8th; and whether he would state the vaccinal condition of these patients.—Mr. BURNS (in a written answer) replied: I am aware of the occurrence of the cases referred to, but I have no information at present as to the vaccinal conditions of the patients.

Leprosy in England.

Colonel YATE asked the President of the Local Government Board whether leprosy was spreading in this country; and whether he proposed to institute the compulsory segregation in this country of persons suffering from the disease.—Mr. BURNS furnished the following written reply: There are only a few cases of leprosy in this country, and, so far as I am aware, the disease is not spreading here. I am advised that measures for the compulsory segregation of persons suffering from leprosy in this country would not be justified at present. I may add that the whole question is under the careful consideration of my department.

TUESDAY, MARCH 25TH.

Hospitals and Legacy Duty.

Sir JOHN BARRAN asked the Secretary to the Treasury whether the Chancellor of the Exchequer had been appealed to on behalf of voluntary hospitals to remit legacy duty on all sums left by will to such hospitals; whether he was aware that for the last four available years, 1907–10, this duty averaged only about £57,000 per annum; whether all Irish hospitals were already exempt from such duty; and whether, in view of the present and prospective difficulties and responsibilities devolving on voluntary hospitals through the National Insurance Act, he would sympathetically consider the question of placing the voluntary hospitals of Great Britain in the same position as those of Ireland in this respect.—Mr. MASTERMAN replied: The answers to the first and third parts of the question are in the affirmative. With regard to the second part, I am advised that, so far as it can be ascertained, the amount of duty involved is approximately £100,000 per annum. My honourable friend's suggestion has received most careful consideration, but I fear that the Chancellor of the Exchequer does not see his way to make the suggested alteration.

Maternity Benefit in Scotland.

Mr. WATT asked the Secretary to the Treasury whether in Scotland, and particularly in Edinburgh, maternity benefit was not being paid to the women themselves but to male relatives representing themselves as authorised to receive such; whether this was according to the Act, or whether the Insurance Committees had power to alter this method of payment.—Mr. MASTERMAN answered: The Scottish Commissioners are not aware that maternity benefit either in Edinburgh or elsewhere in Scotland is being paid to persons other than the insured persons entitled to it without proper authority from the latter. Section 18 (1) of the Act provides that where the husband is insured the maternity benefit is payable in respect of his insurance and by his society, and is to be treated as his benefit, though the society has power to administer it in cash or otherwise as it thinks fit. Insurance Committees administer under similar conditions the maternity benefit of deposit contributors, but they have no powers with regard to the maternity benefit of members of Approved Societies.

Panel Practitioners and Income-tax.

Mr. MALCOLM asked the Chancellor of the Exchequer whether he could see his way to permit medical men earning incomes under the National Insurance Act to bank such moneys free of income-tax.—Mr. LLOYD GEORGE wrote in reply: I do not see my way to the granting of differential income-tax treatment to doctors who may be deriving income under the National Insurance Act.

Advisory Committee on Vivisection.

Mr. VINCENT KENNEDY asked the Secretary of State for the Home Department to state the names of the new advisory body set up to assist his department in the administration of the Vivisection Act; and how many members of this body had personally made experiments, giving the name or names.—Mr. MCKENNA (in a written answer) replied: The names of the members of the Advisory Committee for the purposes of the administration of the Cruelty to Animals Act, 1876, are: Sir Anthony Bowlby, C.M.G., F.R.C.S., Sir John Rose Bradford, K.C.M.G., M.D., D.Sc., F.R.C.P., F.R.S., Sir H. Bryan Donkin, M.D., F.R.C.P., George Henry Makins, C.B., F.R.C.S., Lord Moulton, Seymour John Sharkey, M.D., F.R.C.P., and Charters J. Symonds, M.D., M.S., F.R.C.S. Sir A. Bowlby and Sir J. R. Bradford are the

only members who have held licences to perform experiments on living animals, the former 28 years ago, the latter 9 years ago.

WEDNESDAY, MARCH 26TH.

A Pure Flour Bill.

In reply to Sir JOHN LONSDALE, Mr. BURNS (President of the Local Government Board) stated that he had in preparation a Bill dealing with the prevention of the adulteration of flour, and he hoped to introduce it soon.

BOOKS, ETC., RECEIVED.

ALLEN, GEORGE, AND COMPANY, LIMITED, 44 and 45, Rathbone-place, London, W.

Zones of the Spirit. A Book of Thoughts. By August Strindberg. With Introduction by Arthur Babillotte. Translated by Claud Field, M.A. Price 5*s.* net.

A. MARCUS AND E. WEBER'S VERLAG, Bonn.

Ueber nervöse Erkrankungen nach Eisenbahnunfällen. Von Dr. med. Paul Horn, in Bonn. Mit einem Vorwort von Dr. Th. Rumpf. Price, paper, M. 4; bound, M. 4.80.

BAILLIÈRE, J. B., ET FILS, Paris.

La Pratique des Maladies des Enfants. Diagnostic et Thérapeutique. Publié en Fascicules. VIII. Chirurgie du Crâne, du Rachis, du Thorax, du Bassin et des Membres, Orthopédie. Par M. Denucé de Bordeaux, et M. Nové-Josserand, de Lyon. Price Fr.14.

BAILLIÈRE, TINDALL, AND COX, London.

Minor Maladies and Their Treatment. By Leonard Williams, M.D., M.R.C.P., Physician to the French Hospital. Third edition. Price 5*s.* net.

CHURCHILL, J. AND A., London.

A Short Practice of Midwifery. By Henry Jellett, B.A., M.D. (Dublin University), F.R.C.P.I., Master, Rotunda Hospital. With a Preface by Sir W. J. Smyly, M.D., F.R.C.P.I., Formerly Master of the Rotunda Hospital. Sixth edition, revised. Twentieth Thousand. Price 10*s.* 6*d.* net.

FISCHER, GUSTAV, Jena.

Vorarbeiten zur Bekämpfung der Diphtherie. Von Prof. Dr. H. Conradi in Dresden. Price M. 3.50.

Die Morphologie der Missbildungen des Menschen und der Tiere. Herausgegeben von Dr. Ernst Schwalbe. III. Teil. Die Einzelmissbildungen. IX. Lieferung. 1. Abteilung. 4. Kapitel. Die Missbildungen des Kopfes. Price M. 3.20.

Leitfaden zur Untersuchung der Zerebrospinalflüssigkeit. Bearbeitet von F. Plaut, München, O. Rehm, Bremen-Ellen, H. Schottmüller, Hamburg-Eppendorf. Price, paper, M. 3.50; bound, M. 10.

Lehrbuch der Augenheilkunde. Herausgegeben von Dr. Theodor Axenfeld, Professor der Augenheilkunde in Freiburg i. Br. Dritte Auflage. Price, paper, M. 15; bound, M. 16.50.

Die Pathologie und Therapie der plötzlich das Leben gefährdenden Krankheitszustände. Von Sanitätsrat Dr. Richard Lenzmann, prakt. Arzt und Oberarzt am Diakonenkrankenhause zu Duisburg. Dritte, sorgfältig durchgearbeitete und vielfach vermehrte Auflage. Price, paper, M. 12.50; bound, M. 14.

Handbuch der pathogenen Mikroorganismen. Herausgegeben von Dr. W. Kolle und Dr. A. von Wassermann. Zweite vermehrte Auflage. Achtundzwanzigste Lieferung (Bd. V., Seite 607–766). Neunundzwanzigste Lieferung (Bd. II., Seite 289–448). Dreissigste Lieferung (Bd. II., Seite 449–608). Einunddreissigste Lieferung (Bd. II., Seite 609–778). Price M. 5 each.

Handbuch der Vergleichenden Physiologie. Herausgegeben von Hans Winterstein in Rostock. Dreissigste Lieferung. Band III. Physiologie des Energiewechsels. Physiologie des Formwechsels. Erste Hälfte. Einunddreissigste Lieferung. Zweite Hälfte. Price M. 5.

Zur Klinik der Opsonine. Von Professor Dr. med. Alexander Strubell. Price M. 8.

Die Arteriosklerose, ihre pathologische Anatomie, ihre Pathogenese und Aetiologie. Von Arne Faber. Aus dem pathologischen Institut des Kommunehospitals Kopenhagen. Price M. 9.

Jenaer medizin-historische Beiträge. Heft 2. Darstellungen normaler und krankhaft veränderter Körperteile an antiken Weihgaben. Von Dr. Theod. Meyer-Steineg, a.o. Professor an der Universität Jena. Price M. 3. Heft 3. Kranken-Anstalten im griechisch-römischen Altertum. Von Dr. med. et jur. Theod. Meyer-Steineg. Price M. 1.50.

GIBSON, ROBERT, AND SONS (GLASGOW), LIMITED, 45, Queen-street, Glasgow.

The Medical Practitioner's Pocket Day-Book. For 697 names. Price 7*d.* net.

HEINEMANN, WILLIAM, London.

First Year Course in General Science. A Combined Text-book and Note-book. By E. A. Gardiner, M.A., Senior Science Master, Berkhamsted School. Price 2*s.* 6*d.* net.

HIRSCHWALD, AUGUST, Berlin.

Kompendium der Röntgen-Therapie (Oberflächen- und Tiefenbestrahlung). Von Dr. H. E. Schmidt, Berlin. Dritte vermehrte und verbesserte Auflage. Price M. 5.

JOUVE ET CIE, 15, Rue Racine, Paris.

Contribution à l'Étude Histologique de l'Hypophyse pendant la Gestation. Par le Docteur Alfred Siguret, de la Faculté de Médecine de Paris. Price not stated.

LOESCHER, ERMANNO, AND CO. (W. REGENBERG), Rome.

Dottor Arcangelo Creazzo. Studio su la Morte Apparente e la Morte Reale. Price L.3.

MALOINE, A., Paris.

Technique Clinique Médicale et Séméiologie Élémentaires. Publiées sous la Direction du Dr. Émile Sergent. Préface du Dr. Just Lucas-Championnière. Price Fr.12.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.

ALMOND, G. HELY-HUTCHINSON, B.M., B.Ch. Oxon., M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Pathologist to the Royal Mineral Water Hospital, Bath.

ANDREWS, Fleet-Surgeon, R.N., has been appointed Medical Officer of Health for the combined area of the Urban Councils of Newnham, Westbury, and Awre, with the Rural District Councils of Gloucester, East Dean, and Lydney.

BACK, H. H., M.B. Lond., M.R.C.S., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Acle District of the county of Norfolk.

BROWN, T. GRAHAM, M.B., B.S. Edin., has been appointed Lecturer in Experimental Physiology in the University of Manchester.

BUCKLEY, W. H., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Poulton-le-Fylde District of the county of Lancaster.

CAMERON, J., M.D. Lond., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Loanhead District of the county of Edinburgh.

CONNON, MIDDLETON, C.M., M.D., D.P.H. Aberd., has been appointed Medical Officer to the Aberdeen Dispensary.

FINDLAY, J. S., M.B., M.S. Aberd., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Dufftown District of the county of Banff.

FOSTER, CHARLES MICHAEL, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Hawkesbury District by the Chipping Sodbury (Gloucestershire) Board of Guardians.

JOLL, C. A., F.R.C.S. Eng., has been appointed Senior Resident Medical Officer at the Royal Free Hospital.

JULER, FRANK A., M.B. Cantab., F.R.C.S. Eng., has been appointed Assistant Surgeon to the Central London Ophthalmic Hospital.

KELLIE, KENNETH, M.B. Cantab., M.R.C.P. Lond., has been appointed Physician to the Belgrave Hospital for Children.

LEECH, E. B., M.D. Cantab., M.R.C.S., has been appointed Assistant Lecturer and Demonstrator in Materia Medica and Therapeutics in the University of Manchester.

MANN, HAROLD CORRY, M.D. Lond., M.R.C.P. Lond., has been appointed Consultant Medical Officer to the Foundation of St. Olave's and St. Saviour's Grammar Schools.

MUNRO, J. M. H., M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Pathologist to the Royal Mineral Water Hospital, Bath.

RAWLINS, Miss, M.B., B.S. Lond., has been appointed Senior Obstetric Assistant to the Royal Free Hospital.

ROSS, SHEILA M., M.D. Edin., D.P.H., has been appointed Assistant Medical Officer for the Borough of Richmond, Yorkshire.

VALENTINE, WILLIAM ARTHUR, M.D., B.Ch., B.A.O. Dub., has been appointed Medical Officer of Health for the Barnstaple (Devon) Port Sanitary Authority.

WALKER, E., M.B., Ch.B. Aberd., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Westray District of the county of Orkney.

WESTLAKE, Mrs., M.B., B.S., has been appointed Clinical Assistant to the Royal Free Hospital.

WHITE, ADAM, M.B., Ch.B. Edin., has been appointed Assistant Tuberculosis Medical Officer for the County of Hereford.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRKENHEAD BOROUGH HOSPITAL.—Junior House Surgeon. Salary £80 per annum, with board and laundry.

BIRKENHEAD UNION INFIRMARY AND WORKHOUSE.—Senior Resident Assistant Medical Officer. Salary £130 per annum, with board, apartments, &c.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House Surgeon. Salary £75 per annum, with board, rooms, &c.

BIRMINGHAM, RUBERY HILL ASYLUM.—Junior Assistant Medical Officer. Salary £150 per annum, with apartments, board, and washing.

BIRMINGHAM UNION, DUDLEY-ROAD INFIRMARY.—Assistant Medical Officers. Salary £125 per annum, with apartments, rations, laundry, and attendance.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House Surgeon for six months. Salary £75 per annum, with board, residence, and laundry.

BOOTLE BOROUGH (GENERAL) HOSPITAL.—Junior House Surgeon. Salary £80 per annum, with residence, board, and laundry.

BRIDGWATER HOSPITAL.—House Surgeon, unmarried, for six months. Salary at rate of £100 per annum, with board, lodging, and washing.

BRIGHTON, ROYAL SUSSEX COUNTY HOSPITAL.—Assistant House Surgeon, unmarried. Salary £80 per annum, with apartments, board, and laundry. Also Assistant House Surgeon, unmarried, for Septic Block. Salary £80 per annum, with apartments, board, and laundry.

BRISTOL GENERAL HOSPITAL.—First House Physician, Second House Physician, and Casualty House Surgeon for six months. Salary £80 per annum, with board, residence, &c. Also Assistant Anæsthetist.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House Surgeon for six months. Salary at rate of £75 per annum, with board, laundry, and apartments.

BUXTON, DEVONSHIRE HOSPITAL, Derbyshire.—Assistant House Physician for six months. Salary £100 per annum, with apartments, board, and laundry.

CAMBRIDGE, ADDENBROOKE'S HOSPITAL.—House Physician. Salary £80 per annum, with board, residence, and laundry.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer, unmarried. Salary £160 per annum, with board, lodging, washing, and attendance. Also Locum Tenent Assistant Medical Officer. Salary £4 4s. a week, with emoluments as above.

DARLINGTON HOSPITAL AND DISPENSARY.—House Surgeon, unmarried. Salary £120 per annum, with board, lodging, and laundry.

DUDLEY, GUEST HOSPITAL.—Assistant House Surgeon for six months. Salary £100 per annum, with residence, board, and washing.

DURHAM COUNTY COUNCIL.—Deputy and Assistant County Medical Officer of Health. Salary £400 per annum.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Surgeon for six months. Salary at rate of £75 per annum, with board, residence, and laundry.

EXETER, ROYAL DEVON AND EXETER HOSPITAL.—Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board, apartments, and washing.

GRIMSBY AND DISTRICT HOSPITAL.—Junior House Surgeon. Salary £80 per annum, with board, lodging, attendance, and washing.

GUILDFORD, ROYAL SURREY COUNTY HOSPITAL.—House Surgeon. Salary £75 per annum, with board, residence, and laundry.

HALIFAX, ROYAL HALIFAX INFIRMARY.—Third House Surgeon, unmarried. Salary £80 per annum, with residence, board, and washing.

HASTINGS, EAST SUSSEX HOSPITAL.—Assistant House Surgeon. Salary at rate of £70 per annum, with board, residence, and washing.

HEMEL HEMPSTEAD, HERTS, WEST HERTS HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with rooms, board, and washing.

HULL ROYAL INFIRMARY.—Casualty House Surgeon. Salary £80 per annum, with board and lodging.

HULL, VICTORIA CHILDREN'S HOSPITAL, Park-street.—House Physician. Salary £45 per annum, with board and laundry.

KEIGHLEY AND BINGLEY FEVER HOSPITAL AND SANATORIUM, Morton Banks, Keighley.—Female Resident Medical Officer. Salary £125 per annum, with residence, board, and laundry.

LEAMINGTON SPA, WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL AND MIDLAND COUNTIES BATHING INSTITUTION.—House Surgeon and House Physician. Salary £100 and £85 respectively, with board, residence, and laundry.

LEYTON, WALTHAMSTOW, AND WANSTEAD CHILDREN'S AND GENERAL HOSPITAL.—Resident House Surgeon. Salary £100 per annum, with rooms, board, and washing.

LICHFIELD, COUNTY MENTAL HOSPITAL, Burntwood.—Junior Assistant Medical Officer, unmarried. Salary £210 per annum, with apartments, board, and washing.

LIVERPOOL STANLEY HOSPITAL.—House Surgeon. Salary £75 per annum, with board, residence, and laundry.

MANCHESTER WORKHOUSE, Crumpsall.—Junior Assistant Medical Officer, unmarried. Salary £110 per annum, with rations, apartments, fire, light, washing, and attendance.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Northwood.—House Physician. Salary £75 per annum, with board, residence, and washing.

NORTHAMPTON, COUNTY BOROUGH OF.—Junior Tuberculosis Officer. Salary £350 per annum.

NORTH SHIELDS, TYNEMOUTH VICTORIA JUBILEE INFIRMARY, Springgardens.—House Surgeon. Salary £100 per annum, with rooms, board, &c.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon. Salary £170. Also Resident and Assistant Resident Surgeons for Branch. Salaries £180 and £170 per annum respectively, with apartments, attendance, light, and fuel.

NOTTINGHAM WORKHOUSE AND INFIRMARY.—Two Assistant Resident Medical Officers, unmarried. Salary £150 per annum, with apartments, board, attendance, and washing.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—House Physician and House Surgeon for six months. Salary in each case at rate of £52 10s. per annum, with board and residence.

PAISLEY DISTRICT ASYLUM, Riccartsbar.—Assistant Resident Medical Officer. Salary £150 per annum, with board and apartments.

PORTSMOUTH INFIRMARY, WORKHOUSE, AND CHILDREN'S HOME.—Second Assistant Resident Medical Officer, unmarried. Salary £120 per annum, with apartments, rations, &c.

PRESTON, COUNTY ASYLUM, Whittingham.—Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, and washing.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—Senior House Physician and Senior House Surgeon. Salary £75 per annum. Also Junior House Physician and Assistant Pathologist and Junior House Surgeon. Salary £60 per annum each. All for six months, with residence, board, and laundry.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney-road.—House Physician and House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and washing.

ROCHDALE INFIRMARY.—Junior House Surgeon, unmarried. Salary £80 per annum, with board, residence, and laundry.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Female Junior Obstetric Assistant. Board, lodging, and washing, but no salary.

ROYAL LONDON OPHTHALMIC HOSPITAL, City-road, E.C.—Third House Surgeon for eight months. Salary at rate of £50 per annum, with board and residence.

ST. GEORGE'S UNION INFIRMARY, Fulham-road, S.W.—Second Assistant Medical Officer. Salary £130 per annum, with board, residence, and washing.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, Cavendish-square, W.—Honorary Surgeon.

ST. MARYLEBONE INFIRMARY, Rackham-street, Notting Hill, W.—Second Assistant Resident Medical Officer, unmarried. Salary £100 per annum, with apartments, rations, and washing. Also Third Assistant Resident Medical Officer, unmarried, for six months. Salary £50, with apartments, rations, and washing.

ST. PANCRAS, METROPOLITAN BOROUGH OF.—Medical Officer of Health. Salary £600 per annum.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion-square, W.C.—Honorary Assistant Surgeon.

SALOP COUNTY COUNCIL.—Tuberculosis Medical Officer. Salary at rate of £400 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone-road, N.W.—Medical Registrar

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House Surgeon for six months. Salary £80 per annum, with board, residence, &c.

SEAMEN'S HOSPITAL SOCIETY, Greenwich, S.E.—DREADNOUGHT HOSPITAL, Greenwich: Assistant Pathologist to the Hospital and School. Salary £100 per annum, with lunch and tea. Also Two House Physicians and Two House Surgeons, all for six months. Salary in each case £50 per annum, with board, residence, and washing. ALBERT DOCK HOSPITAL, Connaught-road, E.: Senior House Surgeon. Salary £100 per annum, with board, residence, and washing. Also House Surgeon. Salary £50 per annum, with board, residence, and washing.

SHEFFIELD, JESSOP HOSPITAL FOR WOMEN.—Assistant House Surgeon, unmarried. Salary £60 per annum, with board, residence, and laundry.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Physician, unmarried. Salary £60 per annum, with board, lodging, and washing.

SHEFFIELD ROYAL INFIRMARY.—Two House Surgeons. Salary £80 per annum. Also Junior House Surgeon. Salary £70 per annum. Also Assistant House Physician. Salary £70 per annum. With board and residence.

SHEFFIELD UNION HOSPITAL, Firvale.—Resident Assistant Medical Officer, unmarried. Salary £120 per annum, with apartments, rations, &c.

SHREWSBURY, SALOP COUNTY AND WENLOCK BOROUGH LUNATIC ASYLUM, Bicton Heath.—Medical Superintendent. Salary £650 per annum, with house, fuel, light, &c.

SOUTHAMPTON, FREE EYE HOSPITAL.—House Surgeon. Salary £100 per annum, with board, lodging, and laundry.

SOUTHAMPTON, ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House Surgeon for six months. Salary at rate of £60 per annum, with rooms, board, and washing.

SOUTH SHIELDS, INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior and Junior House Surgeons. Salaries £100 and £90 per annum respectively, with residence, board, and washing.

SOUTHWARK UNION INFIRMARY, East Dulwich-grove, S.E.—Third Assistant Medical Officer. Salary £120 per annum, with board, lodging, and washing.

STIRLING DISTRICT ASYLUM, Larbert, N.B.—Third Assistant Medical Officer (female). Salary £100 per annum, with board, &c.

STROUD GENERAL HOSPITAL.—House Surgeon. Salary £120 per annum, with board, lodging, and washing.

SUNDERLAND, ROYAL INFIRMARY.—Junior House Surgeon for six months. Salary £80 per annum, with board, residence, and laundry.

TALGARTH, BRECON AND RADNOR ASYLUM, Breconshire.—Assistant Medical Officer, unmarried. Salary £200 per annum, with quarters, board, attendance, and laundry.

THAKEHAM UNION WORKHOUSE AND DISTRICT, Sussex.—Medical Officer. Salary £100 per annum and vaccination fees.

UNIVERSITY COLLEGE HOSPITAL, Gower-street, W.C.—Tuberculosis Officer.

VICTORIA HOSPITAL FOR CHILDREN, Tite-Street, Chelsea, S.W.—Physician to In-patients. Also Physician to Out-patients.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House Surgeon for six months. Salary at rate of £100 per annum, with apartments, maintenance, and laundry.

WEST AFRICAN MEDICAL STAFF.—Appointments. Salary £400 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Junior House Surgeon. Salary at rate of £75 per annum, with board, residence, and washing.

WEST RIDING OF YORKSHIRE.—Tuberculosis Officers. Salary £400 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House Surgeon. Salary £100 per annum, with board, rooms, and laundry.

WORKSOP DISPENSARY AND VICTORIA HOSPITAL.—Medical Officer and House Surgeon. Salary £150 per annum, with rooms, coal, gas, and attendance.

YORK DISPENSARY AND MATERNITY HOSPITAL.—Resident Medical Officer, unmarried. Salary £140 per annum, with board, lodging, and attendance.

New Addresses.

FINZI, N. S., M.B., 107, Harley-street, W. Telephone: 4869 Mayfair.

A fee of 2s. 6d. is charged for the insertion of Notices of Change of Address, which must not exceed two lines.

Births, Marriages, and Deaths.

BIRTHS.

CAMPBELL.—On Feb. 3rd, 1913, at Whangarei, New Zealand, to Dr. and Mrs. J. G. Campbell, a daughter.

GEDDES.—On March 18th, at Merrion-square, Dublin, to Dr. and Mrs. A. C. Geddes, a daughter.

MARRIAGES.

SLATER—BEALES.—On March 24th, at St. Michael's Church, Berkhampstead, Benjamin Holroyd Slater, B.A., M.B., B.C. (Cambridge), F.R.C.S. (England), of Bradford, to Ella Beales, M.B., B.S. (London), younger daughter of Henry Francis Beales, Esq., of Ickleton, Essex.

DEATHS.

PERKINS.—On March 13th, at Rome, John Perkins, M.R.C.S.

PHILLPOTTS.—On March 20th, at Nice, Herbert Macdonald Phillpotts, M.R.C.S., L.R.C.P., aged 47.

Notes, Short Comments, and Answers to Correspondents.

CONTRIBUTING PATIENTS AT VOLUNTARY HOSPITALS.

IN "Provident Principles in Voluntary Hospitals," Mr. Richard Kershaw, secretary of the Central London Throat and Ear Hospital, makes a plea for the encouragement of the principle of voluntary contributions to hospitals by those above the needy class who use them Not payment, for, as he rightly says, "payment is something which ought to bear some relation to the [market] value of the article purchased." Mr. Kershaw reasons that the workman, the skilled artisan, the small shopkeeper, the clerk, and even the clergy and professional men are witnesses of the fact that in illness the very rich can command the highest medical skill, because they can afford to pay for it in their own homes or in privately conducted nursing homes. They see also that the very poor can command precisely the same skill, because it is provided for them without payment at the voluntary hospitals; but in their own case there is no middle course of nominal or moderate fees, and so they, too, must seek relief at the voluntary hospital and accept the gratuitous services of the surgeons, more often than not against their own inclination. There is, of course, some truth in this contention, but what of the general practitioner? The tendency to fly to the specialist on all occasions is already marked. The very poor do not make a paying *clientèle*. If the middle class is to be taken from general practice, what remains? It is fair to add that Mr. Kershaw, on classifying the patients at the Central London Throat and Ear Hospital, points out that of the 828 in-patients in 1911 63 per cent. were sent to the hospital by general practitioners, while 25 per cent. were obviously too poor to pay, and 12 per cent. were urgent operative cases. Of the 11,303 out-patients 40 per cent. were recommended by a general practitioner, 5 per cent. were sent for special treatment by kindred institutions, 11 per cent. came with subscribers' letters, 16 per cent. were obviously of the poorest class, and 5 per cent. who came on their own account were referred for endorsement to their own medical attendant and only rarely was an unfavourable reply received. This, it will seem, accounts for only 77 per cent. of the total. Moreover, while Mr. Kershaw in his indictment of present conditions refers sympathetically to the less needy patients being compelled to "accept the gratuitous services of the surgeons," we do not gather that they are in any way to be benefited by these patients' voluntary contributions, which elsewhere are stated to be "towards the expense in outlay in drugs and food." The basic principle of the voluntary hospital has always been that so long as the charitable public provide the material cost of the really necessitous patient, the profession willingly contributes its share in kind by free medical service on like philanthropic grounds. But this basis is entirely upset by an organised system of collecting voluntary contributions from patients if no part of the sum total so collected is to find its way towards payment of medical services. Our own view is that so long as philanthropy is spontaneous and individualistic, the medical profession as individuals of the general public contribute their quota in kind instead of cash. But when this philanthropic endeavour becomes organised on a business (not necessarily a commercialised) basis, there ceases to be adequate reason why medical service should not rank as a charge on the institution.

"THE RISING OF THE LIGHTS."

To the Editor of THE LANCET.

SIR,—The writer of the annotation on Enterotaxis in THE LANCET of March 15th can offer no guess as to the nature of the disease "the rising of the lights," and is evidently, therefore, not a Scotsman. In Scotland "the lights" is an old and widely spread term for the lungs, and the only difficulty as to the nature of the disease lies in the term "the rising." I would suggest that it meant a very copious and fatal hæmoptysis. In the Bill of Mortality for 1706, while consumption is credited with 2716 deaths, "the rising of the lights" is given as responsible for 56. I am, Sir, yours faithfully,

March 25th, 1913. G. S. M.

*** The meaning of the word "lights" was not in question—"lights" can be found in dictionaries as implying the lungs, and the term is in frequent use. But what is "the rising of the lights"? Our correspondent's suggestion is a probable one.—ED. L.

SOME USEFUL REFERENCE BOOKS.

IT is difficult to imagine what life would be like in the present day without books of reference, and it is still more difficult to imagine how future generations will find time to consult such books if these continue to increase in quantity at anything like the same rate that they are being produced in the present age. One of the latest is the *Directory of Women Teachers* (London: The Year Book Press. 1913. Pp. 119 + 134. Price 5*s.* net), companion volume to the *Schoolmasters' Year Book*, dealing with women teachers engaged n higher and secondary education. It is divided into three parts, the first containing a review of the educational year and a list of the education committees and other bodies associated with higher and secondary education, the second part a biographical directory, and the third part a list of girls' secondary schools, public and private, universities, training colleges, and schools for various specific subjects.—Among other books of reference recently issued is the *Public School Year-Book, 1913* (same publishers and price. Pp. 817), the official book of reference of the Headmasters' Conference, edited by H. F. W. Deane and W. A. Evans. Much useful information is contained in this now well-known publication relating to public schools, their governing bodies, staff, entrance examinations, scholarships, and so forth, as well as such details as a parent or guardian is likely to require with regard to the navy, army, civil service, and the professions generally.—The *Year Book of Scientific and Learned Societies of Great Britain and Ireland*, 1912 (London: C. Griffin and Co., Limited. Pp. 373. Price 7*s.* 6*d.*) is, as the subtitle explains, a record of the work done in science, literature, and art during the session 1911–12 by numerous societies and Government institutions. It is compiled from official sources, and is now in its twenty-ninth annual issue. It contains the address of the different societies, list of officers, and dates of meetings, in addition to the titles of the papers read and discussions which have taken place at the learned societies during the year.—A book of a somewhat different character, but still a book of reference, is the *Historical Record—1836-1912—of the University of London* (London: Hodder and Stoughton. Pp. 572. Price 5*s.* net), which has been issued as a supplement to the University of London Calendar. In it the various charters which have been granted to the University and the Statutes under which it is governed are set out, while information is printed with regard to trusts, scholarships, prizes, and other similar information, together with lists of former Fellows (no new Fellows were nominated after 1898) and officers and graduates in the various faculties. A picture of the central offices of the University forms a frontispiece.—The January issue of the *Matriculation Directory*, published periodically (London University Correspondence College, 32, Red Lion-square. Pp. 151. Price 1*s.* net), contains, in addition to useful information concerning text-books, the matriculation examination papers set for the January examination, 1913, with their answers fully worked out.—The twenty-third edition of the *Handy Newspaper List* (London: Charles and Edwin Layton. Pp. 184. Price 6*d.*) certainly does not belie its title. It is a list of newspapers and periodicals published in towns in the United Kingdom and arranged in alphabetical order. All the necessary information with respect to price, publishing day, addresses, and politics, if any, is given.—*Truth Cautionary List for 1913* (London: Truth Publishing Co. Pp. 146. Price 1*s.*), which has been revised and brought up to date, will prove useful to a large number of people who are more or less unfamiliar with modern methods of advertising and who desire information with regard to advertisers in the public press and elsewhere. The list has now been published for some 10 or 11 years and is too well known to need detailed description. It is a remarkable testimony to the vigilance of our contemporary.

MEDICAL POETS.

A MONTH or so ago we referred briefly to an essay on Tom Moore by Dr. H. Macnaughton Jones in the *Poetry Review*. In the March issue of that journal is a poem entitled "In Memoriam: John Davidson," by another member of the medical profession, Dr. Ronald Campbell Macfie, to whom has been awarded the monthly prize of the Poetry Society.

TRAVELLING PLAGUE DISPENSARIES.

IN the Report on Plague Administration and the Working of Travelling Dispensaries in the United Provinces of Agra and Oudh for the Year July, 1911, to June, 1912, it is noted that 32 plague travelling dispensaries were employed for the first time as a plague fighting agency by the Lieutenant-Governor (Sir John Hewett), at the suggestion of the Inspector-General of Civil Hospitals. These proved a remarkable success, and their undoubted popularity with all classes was such that in many districts funds were raised to maintain such dispensaries from local funds, and petitions were sent in to the collector to open permanent hospitals. Each dispensary was an agency for carrying out inoculation work and was equipped with a complete plague inoculation outfit. The fact that free medical advice was obtainable in their own village gave the villagers tangible evidence of the active desire of the authorities to assist them in their struggle against plague.

THE WASSERMANN INSTITUTE.

WE have received the following communication from the Wassermann Institute, Sutherland House, Lloyds avenue, London:—"At the inception of the Wassermann Institute a title was chosen to express the fact that all Wassermann reactions conducted in our laboratory are made strictly in accordance with the original method and with reagents exclusively prepared under the control of Geh. Med.-Rat Prof. Dr. A. von Wassermann. The expression in that title 'under the superdirection of Geh. Med.-Rat Prof. Dr. A. von Wassermann' therefore does not imply that Prof. Dr. A. von Wassermann personally

supervises the institute, but simply refers to the reagents used, as stated above. Geh. Med.-Rat Prof. Dr. A. von Wassermann is not financially interested in the Wassermann Institute." The above announcement is, we are told, made at Professor Wassermann's request.

THE LATE CAPTAIN SCOTT, R.N.

WE have received from the publishers, Messrs. S. Hildesheimer and Co., Limited, 96, Clerkenwell-road, London, a copy of their memorial portrait of the late Captain Scott, representing the dead explorer in full dress uniform. It is an excellent likeness.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole-street, W.

MONDAY.
SECTION OF ODONTOLOGY (Hon. Secretaries—Stanley P. Mummery, Robert McKay): at 8 P.M.
Casual Communication:
Mr. F. R. Smyth: Misplaced Mandibular Canine.
Papers:
Mr. J. G. Turner: The Mouth in Relation to Surgical Operations.
Mr. Gordon Shiach: An Echo of the Past.

TUESDAY.
SECTION OF PATHOLOGY (Hon. Secretaries—H. R. Dean, Gordon W. Goodhart): at 8.30 P.M.
Laboratory Meeting at the Pathological Department, Guy's Hospital.
Annual General Meeting.
Dr. Ryffel and Dr. Herbert French: Observations on Urea in the Blood.
Dr. N. Mutch: The Application of Barcroft's Differential Gas Analysis Apparatus in the Estimation of Urea in the Blood.
Dr. G. W. Nicholson: Demonstration of Specimens of Carcinoma of the Rat.
Dr. Eyre: The Distribution of Certain Bacteria in the Alimentary Canal.
Dr. E. P. Poulton: The Effect of Pathological Conditions on Respiration.
Dr. R. A. Chisolm: Some Points in Uranium Nephritis.
Dr. W. Johnson: Demonstration of the Changes in the Respiratory Centre in Asphyxia; and other Neurological Specimens.
Dr. G. W. Goodhart: Zonal Necrosis of the Liver Associated with Pneumococcal Septicæmia.

THURSDAY.
SECTION OF OBSTETRICS AND GYNÆCOLOGY (Hon. Secretaries—W. W. H. Tate, T. W. Eden): at 8 P.M.
Specimens:
Dr. Thomas Wilson (Birmingham): (1) Chorion Epithelioma, the Cause of Severe Internal Hæmorrhage; (2) Dermoid Cyst and Contents of Unusual Nature.
Dr. P. J. McCann: (1) Ovarian Pregnancy at the Fourth Month; (2) Perforation of the Uterus; (3) Pancreatic Cyst Simulating an Ovarian Tumour.
Short Communication:
Dr. J. Bright Banister: Case of Extensive Rupture of the Utero-vaginal Junction with Escape of the Placenta into the Peritoneal Cavity.
Dr. Louise McIlroy and Dr. Williamina Abel: The Nerves of the Ovary.
Paper:
Dr. V. Zachary Cope and Dr. Kettle: Chorion Epithelioma of the Fallopian Tube following Extra-uterine Gestation.

FRIDAY.
SECTION OF LARYNGOLOGY (Hon. Secretaries—Dan McKenzie, E. A. Peters): at 4.30 P.M.
Cases, Specimens, &c.:
Will be shown by Mr. Herbert Tilley, Mr. G. N. Biggs, Dr. E. A. Peters, and others.
SECTION OF EPIDEMIOLOGY (Hon. Secretaries—G. S. Buchanan, William Butler): at 8.30 P.M.
Paper:
Dr. A. K. Chalmers: The House as a Contributory Factor in the Death-rate.

RÖNTGEN SOCIETY, Institution of Electrical Engineers, Victoria Embankment, W.C.
TUESDAY.—8.15 P.M., Papers:—Prof. Saubermann (Berlin): The Physiological Principles of Internal Radium Therapy.—Dr. Cotton (Bristol): The Radiographic Episcope—a New Instrument for the Utilisation of the Single X Ray Print.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, N.
THURSDAY.—4.15 P.M., Address:—Mr. H. J. Gillies: Chronic Middle Ear Disease and its Treatment.

BRITISH OTO-LARYNGOLOGICAL SOCIETY, Rooms of the Medical Society, 11, Chandos-street, W.
THURSDAY.—5 P.M., Meeting.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, Hammersmith-road, W.
FRIDAY.—8 P.M., Cases will be shown by Dr. A. Saunders, Mr. A. Baldwin, Dr. J. Bernstein, Mr. D. Armour, Mr. T. Gray, Mr. S. G. MacDonald, Dr. H. J. Davis, Mr. O. Addison, Mr. W. McAdam Eccles, and Mr. B. Harman. 9 P.M., Clinical Meeting.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.
MONDAY.—10 A.M., Dr. Simson: Diseases of Women. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye.
TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Diseases of the Skin
WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Mr. Bishop Harman: Diseases of the Eye. Dr. Simson: Diseases of Women.
THURSDAY.—2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye.
FRIDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Diseases of the Skin.
SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. Bishop Harman: Diseases of the Eye. 2 P.M., Medical and Surgical Clinics. X Rays. Operations.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.
MONDAY.—Out-patient Demonstrations:—10 A.M. Dr. Singer: Medical. Mr. H. Curtis: Surgical. 12 noon, Mr. G. N. Biggs: Throat, Nose, and Ear.—2.15 P.M., Mr. W. Turner: Surgery. 3 P.M., Mr. W. Turner: Operations. 3.15 P.M., Sir Dyce Duckworth: Medicine. 4.15 P.M., Mr. R. Lake: Ear and Throat.
TUESDAY.—Out-patient Demonstrations:—10 A.M., Dr. G. Holmes: Medical. Mr. A. J. Walton: Surgical. 12 noon, Dr. H. MacCormac: Skin.—2 P.M., Mr. L. McGavin: Operations. 2.15 P.M., Mr. R. Carling: Surgery. 3.15 P.M., Dr. G. Rankin: Medicine. 4.15 P.M., Sir Malcolm Morris: Skin.
WEDNESDAY.—Out-patient Demonstrations: 10 A.M., Dr. F. Langmead: Medical. Mr. P. Cole: Surgical. 11 A.M., Mr. R. E. Bickerton: Eye.—2 P.M., Mr. L. V. Cargill or Mr. Choyce: Operations. 2.15 P.M., Dr. F. Taylor: Medicine. 3.15 P.M., Mr. Cargill: Eye Clinique. 4.30 P.M., Mr. C. C. Choyce: Surgery.
THURSDAY.—Out-patient Demonstrations:—10 A.M., Dr. Singer: Medical. Mr. H. Curtis: Surgical. 12 noon, Mr. G. N. Biggs: Throat, Nose, and Ear.—2 P.M., Mr. R. Carling or Mr. W. Turner: Operations. Dr. A. Davies: Pathological Demonstration. 3.15 P.M., Dr. R. Wells: Medicine.
FRIDAY.—Out-patient Demonstrations:—10 A.M., Dr. G. Holmes: Medical. Mr. A. J. Walton: Surgical. 12 noon, Dr. H. MacCormac: Skin.—2 P.M., Mr. L. McGavin: Operations. 2.15 P.M., Sir John Rose Bradford; Medicine. 3.15 P.M., Mr. L. McGavin: Surgery.
SATURDAY.—Out-patient Demonstrations: 10 A.M., Dr. F. Langmead: Medical. Mr. P. Cole: Surgical. 11 A.M., Mr. R. E. Bickerton: Eye.—10 A.M., Dr. W. Steuart: Radiography.

ROYAL EYE HOSPITAL (LONDON SCHOOL OF OPHTHALMIC SURGERY AND MEDICINE), St. George's-circus, Southwark, S.E.
TUESDAY.—4.30 P.M., Lecture:—Mr. Dorrell: Sympathetic Inflammation, its Causation and Prevention.

ROYAL INSTITUTION OF GREAT BRITAIN, Albemarle-street, Piccadilly, W.
TUESDAY.—3 P.M., Dr. A. S. Woodward: Recent Discoveries of Early Man. (Lecture I.)
THURSDAY.—3 P.M., Dr. E. F. Armstrong: The Bridge into Life.
FRIDAY.—9 P.M., Mr. J. J. Dobbie: The Spectroscope in Organic Chemistry.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.
Course of Lecture-Demonstrations on Diseases of the Chest, with Special Reference to Tuberculosis (including a Tuberculin Course):—
MONDAY.—4.30 P.M., Dr. B. King.
THURSDAY.—4.30 P.M., Mr. A. Evans.

LONDON HOSPITAL MEDICAL COLLEGE (UNIVERSITY OF LONDON), London Hospital, Mile End-road, E.
Course of Lectures and Demonstration on Neurology (illustrated with Clinical Cases):—
MONDAY.—4.30 P.M., Dr. T. Thompson: Tabes Dorsalis.
TUESDAY.—4.30 P.M., Dr. Turnbull: Combined Degenerations.
WEDNESDAY.—4.30 P.M., Dr. G. Holmes: Functional Localisation in the Fore-Brain.
FRIDAY.—4.30 P.M., Dr. H. Head: Epilepsy, General and Local.

ANCOATS HOSPITAL, Manchester.
THURSDAY.—4.15 P.M., Mr. W. H. Hey: Cervical Adenitis. (Post Graduate Clinic.)

ROTUNDA HOSPITAL POST-GRADUATE COURSES, Dublin.
MONDAY.—10 A.M., Obstetrical Lecture: The Clinical Phenomena of Labour. 11 A.M., Examination of Patients and Minor Operations.
TUESDAY.—10 A.M., Major Operations. 4 P.M., Class in Gynæcological Diagnosis.
WEDNESDAY.—10 A.M., Obstetrical Lecture: The Clinical Phenomena of Labour (continued). 11 A.M., Examination of Patients and Minor Operations.
THURSDAY.—10 A.M., Major Operations.
FRIDAY.—10 A.M., Gynæcological Lecture: Malignant Disease of the Uterus. 11 A.M., Examination of Patients and Minor Operations. 4 P.M., Class in Gynæcological Diagnosis.

For further particulars of the above Lectures, &c., see Advertisement Pages.

A DIARY OF CONGRESSES.

THE following Congresses, Conferences, and Exhibitions are announced for 1913:—

March 26th–29th (Berlin).—Forty-second Congress of the German Surgical Association.
" 26th–30th (Berlin).—Fourth International Congress for Physio-therapy.
" 29th and 30th (Berlin).—Ninth Congress of the German Roentgen Society.
April 3rd–9th (London).—International Congress of Historical Studies.
" 6th–12th.—Health Week.
" 15th–18th (Wiesbaden).—Congress of Internal Medicine.
" 22nd–25th (London L.C.C. Technical Institute, Vincent-square).—Annual Nursing and Midwifery Conference.
" 26th (Ghent) (opens).—International Exhibition.
May 15th–18th (Paris).—Twenty-first Annual Congress of the Royal Institute of Public Health.
May–October (Leipzig).—First International Building Exhibition.
June 24th–27th (London, Ontario).—Canadian Medical Association.
July 7th–12th (Exeter).—Twenty-eighth Congress of the Royal Sanitary Institute.
" 16th–18th (Oxford, Keble College).—Oxford Ophthalmological Congress.
" 22nd–25th (Brighton).—Eighty-first Annual Meeting of the British Medical Association.
Aug. 4th and 5th (London, Caxton Hall).—English-speaking Conference on Infant Mortality.
" 6th–12th.—(London).—Seventeenth International Congress of Medicine.
" 20th–26th (Ghent).—Third International Congress of Neurology and Psychiatry.
Sept. 2nd–6th (Groningen).—International Physiological Congress.
" 9th–13th (Vienna).—Second International Congress of Life Saving and Prevention of Accidents.
" 10th–17th (Birmingham).—British Association.
" 22nd–28th (Milan).—Fourteenth International Anti-alcoholic Congress.
(London).—Historical Medical Exhibition. (Organised by Mr. Henry S. Wellcome.)
(London, Earl's Court).—Imperial Services Exhibition.
(Chicago).—Congress of the International Association of Refrigeration.
(Washington).—Congress of American Physicians and Surgeons.
(Buffalo).—Fourth International Congress of School Hygiene.

In 1914:—

Aug. 10th–15th (St. Petersburg).—Twelfth International Congress of Ophthalmology.
(Vienna).—Third International Congress for Professional Diseases.
(Auckland, N.Z.).—Australasian Medical Congress.
(St. Petersburg).—Third Mendeléeff Congress of Pure and Applied Chemistry and Physics.
(Washington, D.C.).—International Congress of Americanists.
(London).—International Dental Congress.
(Paris).—Fourth International Medical Congress on Industrial Accidents.

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MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. II. of 1912 were given in THE LANCET of Dec. 28th, 1912.

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(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 26th, 1913.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Mar. 20	29·45	S.W.	0·05	91	55	44	43	46	Fine
" 21	29·57	S.W.	0·21	85	52	40	41	45	Overcast
" 22	29·70	S.W.	0·13	88	56	44	43	46	Overcast
" 23	29·50	S.W.	0·07	74	52	44	45	47	Overcast
" 24	30·05	N.	0·09	62	48	39	41	44	Overcast
" 25	30·31	N.E.	...	59	47	36	38	39	Overcast
" 26	30·03	S.E.	...	84	51	39	40	42	Fine

The following Journals, Magazines, &c., have been received:—British Journal of Dermatology, Journal of State Medicine, British Journal of Dental Science, La Clinique Ophthalmologique, Revue de Chirurgie, Revue de Médecine, American Journal of Obstetrics, Canadian Practitioner and Review, Office International d'Hygiène Publique, Indian Medical Gazette, Annali di Medicina Navale e Coloniale, Medico-Surgical Journal of the Tropics, St. Thomas's Hospital Gazette, Interstate Medical Journal, Pediatrics, Archiv für Schiffs- und Tropen-Hygiene, Albany Medical Annals, St. Mary's Hospital Gazette, American Medicine, Pacific Medical Journal, Medical Review of Reviews.

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